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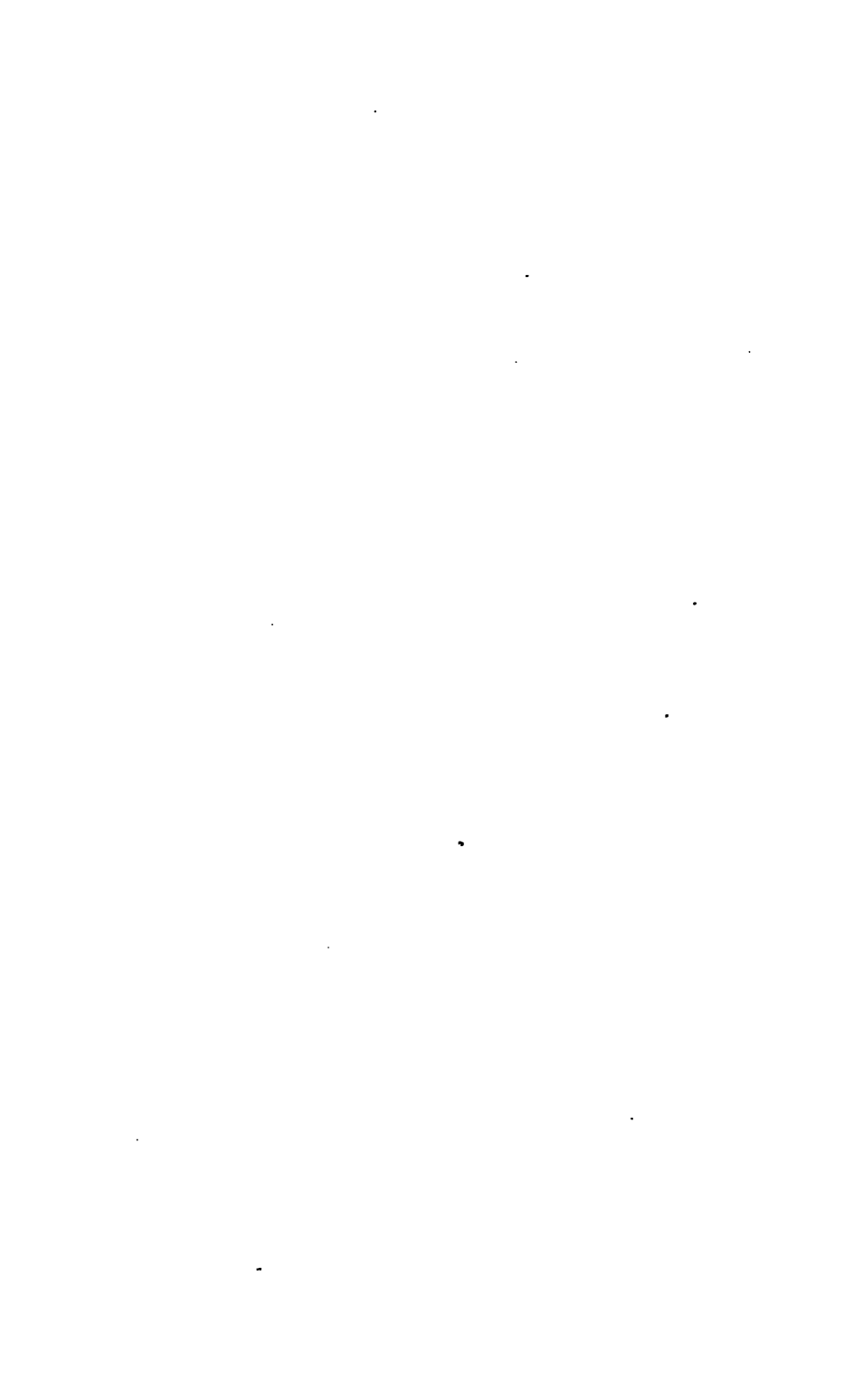


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World



CONTRIBUTIONS TO THOUGHT

CONTRIBUTIONS TO THOUGHT,

BY WILLIAM W. WHEILDON.

FELLOW OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT
OF SCIENCE.



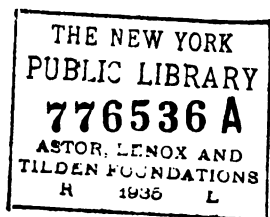
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AUTHOR'S NOTE.

THE following papers and miscellanies were mostly written amidst other absorbing engagements and several of them have been occasionally used as public lectures. In presenting them to his friends in this form, the author does not wish, or seem, to be giving them any importance beyond what they may intrinsically have as thoughtful discussions of generally familiar topics. — Recently while in the partial enjoyment of that modicum of leisure which assuredly may be hoped for after a half century of editorial service, he has occupied himself in preparing them for the press, in the double sense of revision and composition,— rather more practically it may be said, than did the amateur printer of “Strawberry Hill,”— in his private studio. The steam press of our time has done the rest of the work.

He leaves the volume in the hands of his friends in the hope that they will not find reason to regret the interest or influence they have had in its publication.

CONCORD, Mass. August, 1874.

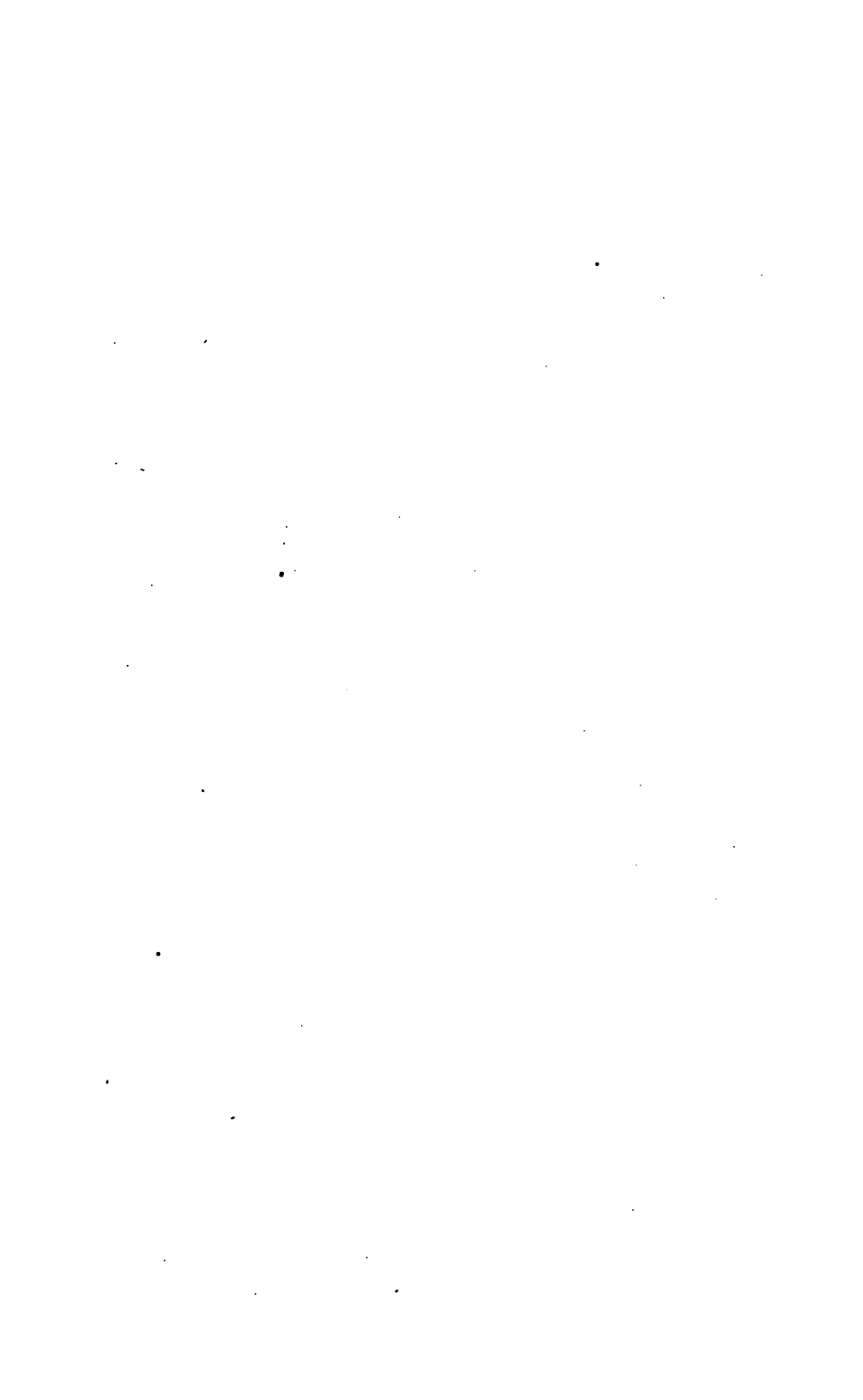
THOUGHT.

The evening calm spread over all,
And sweet meditation like a veil,
Hung its misty covering o'er the mind.
'Twas tranquil as a summer sky ;
Silent as the attendant stars, —
But THOUGHT, free born as light and air
And hope, — knowing no limits
Of time or space ; feeling no rein
Save its own inclining, revell'd
In in its own joy and made music to itself.

Oh, if there be aught in this life
Beyond the bald oppressor's reach,
Which iron rule may not control,
Which wrong itself may not destroy ;
That fairest gem of freedom —
That polar star of slave intelligence —
It is THOUGHT : deep and soul-full.

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I.

MATERIAL PROGRESS.

"Ideas alone must form the substance of a work of art ; without them none can be produced."— [Grimm, *Life of Michael Angelo*, page 357.

"If the Steam Engine had not been invented, we should assuredly stand below the theoretic level which we now occupy. *

* * * Everywhere it is what man has done that shows his progress and his capacity."— [Prof. Tyndal, "Lectures."

"The elements with which creative power works are ideas ; the best ideas * * * current at the time."— [Professor Arnold, "Essays."

"The toil of Science swells the wealth of Art."—[Schiller.

MATERIAL PROGRESS.*

PERHAPS no subject of a philosophical nature can be named, which has so largely interested the public, which has so great a range of topic, and affords scope for such broad speculation, as that of the Material Progress of the Age. It has occupied much space in our periodicals, it has been the theme of orators and historians, and is today a permanent topic of remark. In fact it may be said to have assumed, in our exhibitions and fairs, a tangible presence. It has been pictured, photographed, panoramized, and under the patronage of thrones and people, made sensible to our eyes as to our understandings. It has been elaborately discussed in some of the forms indicated, in its various aspects of moral, physical and intellectual progress; and it is hardly too much to say that there is

* Read before the Massachusetts Charitable Mechanic Association, introductory to the course, December, 1861.

no aspect in which the progress of the race, in its material development, has not been considered. The discussion and the exhibition, if they show nothing else, show at least a high appreciation of the subject, and an equally high estimate of the results attained.

It has been objected that our progress is too material ; that mind is too much absorbed in matter ; that it contrives and invents ; is too practical and lacks a high intellectual development ; but is it thought by any that material and intellectual progress cannot or do not go on together ? that material progress is to be made without, or at the expense of, intellectual progress ? Or that, considering what has been accomplished, man need seek for no further amelioration of his condition or relief from labor, and should apply all his energies to mental culture and mental achievement ? While we should not be disposed to deny that it is in regard to material things that the greatest advancement has been made, it cannot be shown, we think, that progress is made in giving new forms and new uses to matter, other than as a development of intellect — a procreation as it were of thought and genius. Doubtless it is true, for it could not well be otherwise, that in material creations, in mechanics and the arts, progress is most apparent, precisely because it is at once realized by the great mass of the people everywhere as practical. The learned and the unlearned may comprehend improvements in houses, ships, machines, tools and implements, for these are

of every day, household and shophold, when they might not so readily perceive or comprehend progress in law, literature or philosophy.

The question, in some sense, seems to lie between Art and Science; but whatever may be argued concerning these, it is strongly in the order of nature that they should progress *pari passu*, and no divorcement of law or rhetoric can separate them in their advancement. They are, in this sense, indivisible; they hardly know the distinction of age; they are to each other as the vital principle to the highest organism, and to divide is to disable: if progress be to the one, corresponding progress must be to the other. If astronomy was the first science, art made it so; if agriculture was the first art, science contributed to give it title to that distinction — the immaterial mind was and is the parent of each. If the most ancient hieroglyphics yet untombed were the work of art, their invention and form were as truly the work of science.* In the earliest achievements of the Chinese and the Chaldeans; in all the works of the Egyptians, the idea, the design, the invention, and the instruments, preceded construction; and no being could have been given to any of these without the aid of art. Science and Art are like Thought and Action; the Thought can have no birth without the aid of Art, nor can Art manifest itself without the precedent Thought. Science conceives; Art creates. Science is the human intellect; Art the physical power. Science declares the existence of a

* "The toil of Science swells the wealth of Art." Schiller.

planet ; Art enables her to discover it, measure its orbit and ascertain the laws of its motion. Far-seeing Science, peering into the impenetrabilia of nature, suggested the telegraph ; all-potent Art gave it form and working skill, which make it the high exponent of man's intelligence.

The question of material progress, then, can hardly lie between Art and Science, since each is equally necessary to the progress of the other. Separated they would be comparatively powerless ; together, guided by man's untiring zeal, Art and Science are invincible. — Without these the world, redeemed from chaos, would be an uncultivated waste, and man the lord of all, above his fellow-animals in speech alone. Without these, progress, instead of giving life to the world and power to man, would have early found an unmade grave ; without these, civilization and refinement, which have embellished the earth and elevated the race, would still be wanting. But with these, Archimedes required nothing but a fulcrum to move the world ; with these, in all but throwing it from its orbit, the earth is moved every day.

We have said that in the material and the tangible the greatest progress in human affairs is most apparent, because in these it is practical and real. Inventions, — which are the embodiment of genius and intellect, — are everywhere present, performing the services required of them : they relieve us from labor or help us to perform it ; increase our supplies and cheapen the cost of living ; they are national, social, household,

—while discoveries, which are often only curious, works of philosophy never so abstruse, or achievements in literature however fascinating, are more transient, less apparent to our observation, less essential in our daily duties or pleasures. How, for example, does the discovery of a new planet, or the composition of a new poem, compare with the invention of the telegraph, or the improvement of the quadrant? What is “*Hiawatha*” to the Locomotive? What the knowledge of “*Neptune*” to the use of Ether as an anesthetic? The poem, perhaps, is read and admired by thousands, makes a sensation for a month, lives in the memory for a year, and then becomes classic. The distant planet, spied out at last by the peering pertinacity of man, moves on in its majestic orbit as before, unseen by the million and only observed by the astronomer for some specific purpose. In one we have fertility of imagination, beauty of thought, expression, sentiment; in the other the discovery of a sublime truth, of the value of which we can have no knowledge. But the locomotive is for all time, and for all men, speeding on its way, from sun to sun, in untiring service; while the quadrant, a second polar-star to the navigator, is his daily guide and an anchor of hope where no other anchorage is to be found. And these, the work of Science and Art, are the achievements of the human intellect, as truly as the poem, and while they mark the progress of the race go far to make it. They are only to be displaced by greater achievements in the same direction, for which the world is waiting.

We afford plausibility to the objection of the transcendentalist, because we have not accustomed ourselves to look upon a material creation, — a mere machine, however complex, ingenious or intelligent, — as the real work of the intellect. We associate everything material with mechanism and the mechanic. It is, we seem to think, a work of mere labor, made with the hands, which in fact have only been the instruments of the mind in the construction. We do not ask who thought out the work — in whose plastic brain it was first modelled — but who made it. We seek no process by which we can see and measure the expenditure of thought and intellect of which the carpet-loom, or the steam engine, working with the sagacity with which they are endowed, is in fact the result. The making of the machine, the physical labor bestowed, has been the smallest part in the cost of its production ; but of the intellectual labor, the thoughtful days and sleepless nights, no account has been kept, no items of charge registered. If we see a book, on the contrary, we are accustomed to regard it almost purely as a creation of the intellect and an evidence of its development. — We are apt to lose sight of the mechanical here, and think only of the author of whose brain it is the coinage. It is his work, however skilfully, it has been reproduced and made durable by science and art. We do not inquire what agents, other than the mind of the author, have been employed in its production and only commend him who has given to us in this form, the creation of his intellect or imagination ; who

has thus registered his thoughts and made them communicable to other minds.

But let us see, very briefly, of what agencies, of how much skill and ingenuity, of intellect and labor, these two creations, the Locomotive and the Volume, each more perfect today than ever before, are the result. For the production of the Locomotive we require miners of iron, copper and coal, the refiner of metals and the manufacturer of steel; the pattern-maker, the caster, the tool-maker, the machinist, the draughtsman, the engineer — all of whom, and those dependent upon them, are sustained or aided in their labors and furnished with the multifarious needs and wants of men, by all the other trades and professions of a community: thus embracing a world of ramifications and a world of pursuits, all of which are necessary in some form, to the completion of a single machine which we invariably look upon as the sole product of the artizan or mechanic. And here we have spoken only of the arts of labor: in each of which there must be an original contriver and various directing minds, each armed with the achievements of art and science up to his time, — an expenditure of intellect, which must in like manner be sustained and compensated, by the pursuits and productions, the learning, experience and skill possessed by the whole community. The farmer, the mechanic, the manufacturer, the merchant, all the professions, the banker, the sailor, and innumerable classes of producers, artizans and laborers: all these are necessary agents for the existence of a

community ; and if we should attempt to add the luxuries of our own and foreign countries, more or less of which all classes require, there would really be no stopping place in the enumeration, for there is no trade, no profession, no art, (whether fine arts or arts of labor,) no science, (whether for amusement or instruction, whether for the gratification of the taste, the fancy or the palate,) no accomplishment, (whether of music, language or manners,) — none ; no one pursuit or vocation of man, whether it be in astrology, magnetism or mysterious knockings, (if these should continue to be pursuits,) that is not needed or sustained, participated in or enjoyed, necessary to or a luxury for, that endless circle of occupation and life, physical and intellectual, engaged, mediately or remotely, in the manufacture of a locomotive engine. It is scarcely an exaggeration to say that every machine that is contrived and made, employs or requires, in some sense or in some way, the skill, knowledge and experience of the entire community, an entire people, or it may be an entire world. So truly, in a working sense, are all mankind one family, and so truly does it require for the manufacture of a single machine not merely a certain amount of physical labor, but all that the world knows upon the subject at the time.* This almost endless division of labor and union of effort — the distinguishing features of a high civilization — is one of the strongest, most

* “The elements with which creative power works are ideas ; the best ideas . . . current at the time.” Prof. Arnold.

decided and unmistakable evidences of the progress of the age and the perfection of the arts.

Then of the Volume, wherein we see, at first thought, only the mind and genius of the writer. He must be furnished with writing paper—a great invention in itself; with pens, and whether of gold or steel the elaborate product of science, art and machinery; with ink, and above all with language, those wonderfully contrived signs of thought which made the poor Indian think the white man a god. Then follows the type-founder, who is dependent for his tools and materials upon an entire array of miners and artizans and the scientific corps required to direct their operations; the manufacturer of printing paper, whose art science has rendered almost perfect; the press maker, whose retinue of learning and labor is not less than that required for the locomotive; then again the printer, whose preservative art is itself the handmaid of science; then the bookbinder, who demands the services of the leather dresser, the cotton grower and manufacturer, the engraver, the die-sinker, the gold beater, needle maker, machinist, the cutler and the colorer—and in addition to these all the vast range of science and art upon which these pursuits and professions depend;—and again, as before, through all the ramifications of society, until the skill, labor and experience of all, in every direction and nook of life's service or duty, are embraced in some degree in the production of a single ordinary volume,—and the book cannot be produced without them. The number of persons engaged in all

these ways, directly and indirectly, in the making of a book, and the materials of which it is composed, is often vastly greater than the number who read it after it is made. It is, therefore, as is every other work of art and science, labor and intellect, the rightful product of the whole community.

Now who shall say whether there is more of intellect or labor, thought or effort, in these two products of the mental and physical capacity of man? Or who will say which of the two, the material machine or the intellectual octavo, has called into exercise, in its production, the largest amount of thought; or which is the greatest contribution to the world of intellect and indicative of its progress? Or take, for example, the modern printing-press and the best series of modern novels. No standard of measure, no delicate balance, can be found, by which to weigh or estimate, to divide or compare, the proportions of thought and labor, mental and physical effort, past and present, embodied in the conception and production of each. They are equally among the triumphs of human skill and ingenuity, and promotive in different ways, of the progress and happiness of man: contributing to his power, relieving his labor, ministering to his necessities and elevating him to the highest reach of civilization.

If, then, we are sound in our philosophy, and intellect — to do its proper work, or do anything — must be expressed in some material form, how can it be logically charged upon the Nineteenth Century that it is

lacking in intellectual effort? But, indeed, if the charge were a proper one to be made, why should not the progress of the age be towards the material and the practical? In what direction should it tend to avoid the charge of puerility, or wastefulness, or corruption? in what direction could it progress more in consonance with the design of the Creator? What higher development of the intellect can there be than in those things which emancipate, adorn and glorify the race; which enlarge the capacity and redouble the power of man; which qualify him for achievements the most delicate, humanities the most sublime and triumphs the most gigantic and godlike? It is well that he does not waste his powers upon useless pyramids, in devastating wars, in monkish ceremonials, in the corrupting obscenities of Athens and Pompeii, or even in the intellectual refinements, as they are sometimes called, of the periods of Cleopatra, Elizabeth and Louis Fourteenth. It is not, as has been said, too common a thing to take a practical view of life and its necessities; it is not true, as is also sometimes said, that the age is too utilitarian, too worldly — even in a religious sense. If there be any fault in this matter, it is quite as likely to be in the other direction: that the age is too speculative, too theorizing, too transcendental, and this too, in a religious sense.

It is strange that writers who are so ready to indulge in the charge of material development against this age are not a little more definite and a good deal more ex-

plicit in their allegations. We are left in doubt whether it is meant to compare the modern with the ancient world, or this century with the last. If the former be meant, the allegation will not stand alone; if the latter, it will assuredly need support. All that is due to antiquity, the "lost arts" and all that, has been accorded to it, and this too not a little at the expense of the moderns. Claims have been set up and put forth, in behalf of the ancient kingdoms, by the fanciful and the enthusiastic, which if not perfectly preposterous, partake so much of fashion and the imagination, that they may be better ranked with romance—an intellectual development—than with history. It may be truly said of some of these, based upon eminently physical efforts and supported by arguments more ingenious than convincing, that

— "Distance lends *enchantment* to the view,"

and by a distortion of perspective, makes the exaggerated and imaginary stand for the real and actual. The ancient civilizations were sensuous even to refinement; the modern civilization is elevated and spiritual; the ancient civilizations made woman a slave and denied to her anything like equality of position or nature; modern civilization proclaims her equality with man, protects her virtues, develops her intellect and affections, and regards her as the

"Fairest of creation, last and best

"Of all God's works."

The ancient civilizations built "great walls," costly

palaces, founded great heathen and devastating empires, erected the temples of Greece, constructed the Appian way and the Roman aqueducts; the modern civilization builds innumerable Appian ways and aqueducts, Great Easterns and ocean telegraphs, and in addition to these, the common school house, the Christian church, and asylums for the poor, the blind, the insane, the deaf and dumb and the idiotic. Where they sent armies and fire, chariots and horsemen, we send the school master and the missionary, with light, truth and love.

We have no desire in these remarks to disparage ancient civilization, while questioning the justice of some pretensions so plausibly and pertinaciously set up in its behalf. Whatever may be said of the past, — its arts and refinements, — or however fashionable and pedantic it may be to adore its forms or worship its relics, — history may be searched in vain for that elevated and advanced civilization which will compare with this of the nineteenth century. The world has never seen it — neither have poets or historians recorded it. There are no evidences of it still standing upon the earth, nor are any to be found in Nineveh or Herculaneum beneath its surface. Beyond dispute we are indebted for this distinction to works, to material progress, upon which we depend for illustration and proof. "Everywhere it is what man has done that shows his progress and his capacity."* The occult theory of man's progress up to a given point and the notion — entertained

* Prof. Tyndall. Preface to Lecture on "Heat," &c.

rather than avowed — that the race is then thrown back, as it were, into a state resembling the primeval — to begin life and civilization again — vibrating between certain confines of ignorance and intelligence — gives no support to the pretension that our age has been surpassed in human development and intellectual power by any that have preceded it. It rather warns us, if we are authorized to place any confidence in the theory, that we are now approximating the culminating point, and that by means of flood or fire, or some new world-destroying element, man is again to be cast back into childhood, to begin anew the great human task of civilization. What shall be the end or height of man's progress is unrevealed to him. Perfection, we are taught to believe, is unattainable here : how much short of that he must stop is the great problem never to be solved by living men. Each new step that he is permitted to make, like each new invention and discovery in his material life, makes occasion for another, and so long as man himself is improvable and anything is left to be improved ; so long as the world exists and is unperfected ; the march of progress under his intellectual alchymy, must be onward. Where he shall stop is only to be determined when he stops.

Without admitting the propriety of any division in the results of intellectual effort, by which some of these are ranked as merely material, we think those who make this division are bound to tell us how *pure intellect* can be made manifest in a purely intellectual and immaterial manner. Without form it must be like the

unwritten music of nature, which we hear on the air in the stillness of night, or in the wave as it sings its own requiem along the beach, or in the deep voice of Niagara as it rolls through the forest ; or if not like these, it must be too spiritual for earth and may be sought in vain among men. It is a fallacy, if not more, an absurdity, to charge that the manifestations of intellect are too material, because it moulds itself into forms, shapes into its own ideas inanimate substances and endows them, as it were, with a seeming life and intelligence not their own. A material development of the intellect is a creation, or as a chemist might call it, a solidification of Thought. It is the immaterial mind rendered visible, or matter endowed with intelligence, as man himself, being material, is in a higher degree, endowed with an intangible spirit. It is man's effort at creation, he throws something of his soul into the work, and it is all he is capable of performing. The Great Creator — the Ineffable Spirit of the Universe — is manifested to us by his marvellous works. The world itself is but the expression of the will and power of God, as the birds and the flowers are the familiar evidences of his love and his law. "Let us make man in our own image," was with Him in Thought before man was formed, and is the fiat which brought him into being. The building in which we are assembled, and the organ which speaks with such "miraculous voice" when its ventages are controlled by human fingers, lived first in idea, and are the true and tangible exponents of human thought. The marble statue no less

truly indicates the intelligence than the artistic skill of the sculptor. The beautiful creation of the painter's hand, copied though it be from the outspread volume of Nature, manifests the mind as well as the skill and genius of the artist. The wildest and most sublime imaginings of the poets, unless daguerreotyped by art and made perceptible to the eye, are as the ravings of frenzy or the sougning of the winds among the pine groves. Intellect, to show itself intellect must be manifested in some form which other minds may see and acknowledge — it may be in the poem, the splendid ship, the locomotive or the telegraph. We may exalt the "sublime essences" of the Academicians, as we please, the only way to give to

—————"airy nothing
"A local habitation and a name"—

so that it may be known among men, is by calling in the aid of art to give embodiment to the ideal.

Discoveries and inventions are not made at once — they are gradually reached, even when suggested by necessity or accident. They appear to come to men in the order of things, as the achievements of the age and the results of its progress : whether in arts or arms, in machinery or morals, in science or service, they come at the right time ; they come when needed ; when the world can no longer do without them, and although the way has been surely prepared for them, they come at last almost as an inspiration. No one knows how it is, or why it is : no law or creative process known

to philosophy has been found which controls or regulates the order of invention and discovery. Hundreds or it may be thousands of attempts are made before the object desired is attained, as thousands of machines are made and modified before the right one is secured — and that is never perfect. It would be difficult, if not impossible to mention any article, the sole result of one man's genius, which has not undergone change or improvement in the lapse of time and experience of use. So it is in intellectual progress : sometimes dimly seen as in a vision, or possibly foretold by the prophetic mind. Wickliffe, two centuries before the time of Luther, in his life seemed to shadow forth the coming Reformation. But why it did not come then, or why it did come with Luther, as the exact time, when the world was prepared for it, no one can tell. So with *Magna Charta* — wrenched by the great Barons of England, after blood on blood, from despotic power — came finally at Runnymede, as the ripened fruit : when it was suited for man and the age demanded it. The steam railway of the present century is a wonderfully marked advancement, and as a means of intercourse and transportation may be traced step by step, from the woodman's pathway or the wild track of a nomadic race, over the common road or turnpike, tramway and track — to say nothing of the canal — to its present state of completeness and capability. So rapid has this progress been and so universally has the invention been adopted, that the completed tracks, if now joined, would extend around the globe in two continuous

parallel lines of iron. So vastly has this stupendous invention enlarged the power of man — coming when it was most needed — that without it, or without steam-power, the business of the world, as we behold it today, could not be carried on.

As with the railway, so has it been with other inventions which have been given to the world. In the art of printing, from the rudest attempts at figures or letters impressed upon the skins of animals or the bark of trees, to the perfection of the art as we see it, the progress — retarded by that worse than Egyptian darkness which for ten centuries hung over the old world — has been gradual and permanent. At this day, with its indestructible results, it has placed the learning and the vast acquisitions of the world beyond the reach of accident or the ravages of barbarism, whether Alexandrian or Hunish. It is as it were the tree of life to the human intellect, and its abundant fruit, rich and precious as it is, is offered freely to all partakers, almost without price. No amount of merely intellectual effort, or “ethereal essence,” can equal these great material contributions to the world in respect to its civilization, progress or Christianity.

Such have been the developments of intellect and such the achievements of genius, that man, in the highest range of science and civilization, is almost a god — more real, more powerful, over mind and matter, than any of the mythological host of antiquity. His actual triumphs over nature startle even the man of science, lest the race should be presuming too much upon

omnipotence. He almost fears that he is penetrating too deeply the arcana of knowledge, seeking too earnestly the hidden mysteries of nature, — discovering her secrets, exploring her great recesses and resources, and absolutely assuming to direct her operations; making her do his bidding, checking her own work and marking out new channels wherein she must travel. The waters from the mountains he harnesses to our purposes, and places such ingenious chains about them, that they cannot escape towards the ocean, without first preparing the materials for our habitations, grinding the grain for our sustenance and providing the web for our clothing. The winds of heaven are rendered subservient to our uses, with such skill in these modern times, that they are most astonished who have accomplished the greatest triumphs. At our simple command and without following their direction, they carry us over all oceans, to all parts of the globe, and with such speed as only the birds of the air can equal. The ebb and flow of the tides, their rising and falling, the pressure of the atmosphere, the weight of a column of water, the light and heat of the sun, (the great source of all power,) — in how many ways have these and other operations of nature been pressed into our service and made to do our work? The law of gravitation, acting upon a feather as upon the great pyramid, is to man the great lever, by means of which, if he does not move the earth, he moves everything else at his leisure. Though he may not command the sea to be still, he goes down into its recesses, explores its depths, rifles

its secrets, and does not hesitate to make the waves do him service. Though he cannot make the sun to shine, yet by his subtle ingenuity he compels it, through the instrumentalities of Science and Art, to execute most delicate pictures, with a precision and nicety which human hands must seek in vain to equal. Even the lightning of heaven — disarmed of its terrors by our own Franklin ; armed with its intelligence by our own Morse — has been called into requisition for man's ordinary uses by his daring intrepidity and skill. By the rapidity of its flight he annihilates space, outruns time itself, and with the speed of thought holds instant converse over the earth, guiding it to such delicate machines that its minutest particle cannot choose but take his language with it, even on the line where he directs it to travel and wherever he bids it to go. More even than this : he makes it register its own existence, mark the moments of its flight, and report at Cambridge or Cincinnati, its briefest being at Washington ; compelling it to perform, more accurately than any living agency, much of the abstruse work of scientific calculation : thus the human mind, working with material instruments of its own invention, achieves this grand triumph over itself !

In every step of these inventions and discoveries, leading to the perfection of art, we see the intellect and genius of man developed in material forms, and in these matter is wholly subservient to the plastic power of the mind. They are the results of past discoveries, inventions and experience — not so much of the individual

mind as the general intelligence of the whole community. They mark and make, as nothing else can, the civilization of the time, and give character to the progress of the age. The practical and useful inventions of our time—designed for the advancement of agriculture, commerce and manufactures ; for the convenience and happiness of mankind—have become familiar to our eyes, common to our uses, and ministering angels, as it were, to our wants and our necessities. They have lessened our labors by constantly performing those burdensome tasks which before taxed our energies, exhausted our strength and consumed our time. They enable man to accomplish great purposes, carry forward his gigantic works of improvement and provide from far and near, for all the wants and luxuries of vast and constantly augmenting populations. They in fact lengthen human life, if measured by works, almost indefinitely.

The genius of the age has been humanizing, as well as practical and economical in the expenditure of life. The performance of duty, in a physical and hardly less in a moral sense, has been made comparatively easy. It would require much space to enumerate the conveniences of household life alone, which are so familiar to us, from the friction match to the sewing machine, and we of this generation can scarcely comprehend how our predecessors lived without them, or know how they must have suffered for the want of them. The lighter burdens, by some well adapted instrument or contrivance, have been rendered less burdensome and the se-

verest rendered easy. But above all, and perhaps one of the noblest achievements of man — more needed than ever in a period of greater liability to accident and disaster — is his discovery of a means of suspending sensibility to pain without impairing the courses of life : with which a human being may be severed limb from limb, or almost dissected to reach the source of disease or repair an injury ; indeed may be almost literally cut to pieces, without knowing it, as a means of preserving life !

We have seen that the soil in which the great plant of human progress grows in this world, is the human mind, and the more that is cultivated — the higher its reach and the nobler its aims — the more its capacity is developed, the more abundant and more perfect is the fruit. Without this cultivation and development — the high duty of each generation of men — the world would become sensual and the onward march of human intellect retarded. Men are largely absorbed in their individual interests, and the just demands upon their thoughts and time, with all the aids they can command, consume by far the largest portion of their lives. They live to live. The work of education, feebly and imperfectly as that is accomplished, is attained at an average cost of one-third the life time of each generation — and the remainder is expended in providing for the life which is and the rearing of that which is to succeed. It is marvellous that time is found for the study of the works and laws of nature, for the discovery and development of new principles, new combina-

tions of thought and matter, new views of life and duty, amidst the absorbing cares of daily service and unremitted labor. It is not without reason that the question is asked whether material developments are best calculated to elevate and enlarge our ideas, expand the godlike within us, deepen the fervor of the human heart and raise into purer regions the earth-bound soul. But when we consider that discoveries and inventions are the product of intellectual effort — joint and common and progressive — we cannot question their effect for good upon the world. Come what will we have faith in the practical, for that yields works; but we have not faith in the speculative and transcendental, for they yield mysticism and not works. We have faith in the real; faith in duty and its performance, but not that of a shadow in the Platonic study of the “immutable essence of things.” The perplexities, confusions and uncertainties of this life cannot be the metes and bounds of man’s destiny. Onward and upward he may yet go — and yet there is a further onward and a higher upward, beyond all earth-born efforts and unconceived of by any earth-born aspirations, to which he may not go — even the bright home of the soul! But we would not for that reason reject the material creations of God and man to revel in the fanciful and imaginative; we would not for that reason reject the useful for the possibly harmless; we would not for that reason, like Plato, reject mathematics to study sublimity. We hail every new development of mind as another step in the progress of the world. If that

step be a certain good in itself, we ask no other evidence of its value, or that it is of God.

Let us not be understood, from anything we have said, as claiming too much in the progress of the world for our time, for fear of doing injustice to the past, the many difficulties of which we can in no degree realize. We claim all for man that man has done, but not for our time, in which, however, the greatest progress and highest achievements are to be expected. We do all honor to the early ages; but it must be remembered that this age is the manhood of the world—the period of its adolescence—the perfection of all its growth. However we may speak of antiquity; with whatever enthusiasm we may regard it for the probable truth or fashion of the thing; or however we may lament with the old Minstrel, that

“ Old times have changed, old manners gone,”

or that its excellencies have passed away—the more justly it is antiquity, the more truly was it the infancy of man. The antiquity of the world is its youth and was the childhood of the human race. Its capacity was unknown, its purposes undiscovered, its resources undeveloped, and its inhabitants for ages, like Milton's Eve, listening for a voice,

———“ Much wondering where

“ And what she was, whence thither brought and how.”

Antiquity is not, therefore, the period to which we should look for a high range of civilization, refinement

or material development. The early ages were no doubt progressive, according to their necessities, and it is probable that we owe much to them for the means of improvement which we enjoy today ; but this is the age, and ours the time when we are justified in looking for the highest degree of excellence, the noblest displays of genius, in mind and matter, intellectually and materially. In this age, when all things are developed — the resources of the earth and the capacities of the intellect — when nothing escapes the eye and the effort of man, we look for the highest mental, moral and physical education. Every thought and suggestion, promising any good to him, is no sooner perceived than it is used — and in philosophy, if not in morals, we try all things, and hold fast to that which is — *profitable*.

It is possibly true, as a general principle, that discoveries in science and productions in the fields of literature, are the results of a higher range of mind, or at least of mind in a higher stage of development and general cultivation, than are inventions and improvements in the arts. But this is rather a seeming than an actual difference, since it is mainly to be accounted for in the particular direction of the development or the peculiar adaptation of different minds for different pursuits. The mind which has shown a taste for and received cultivation in the science of astronomy would hardly be that to which we should look for inventions in mechanics — yet these would not be impossible to it nor should we expect the inventor of the cotton-gin or

spinning-wheel of our time—a Whitney or an Arkwright—to make discoveries in chemistry, without an acquaintance with that profound science. But on the other hand, situation, taste and circumstances give a peculiar direction to the development of minds of equal originality and power. Had the controlling circumstances in the lives of Franklin and Sir Humphrey Davy been changed, who can doubt that Franklin would have discovered the Safety-lamp, and Sir Humphrey have peacefully drawn from the cloud its thunder bolt.

It is not true, then, it seems to us, that the genius of the age has unduly expended itself in the development of material things—essential and primary as these are for the advancement of civilization and refinement in any direction. It has reared and established the monuments of its progress in law and literature; in great principles and great truths; in religion and humanity; in asserting and establishing civil rights as applicable to all mankind; in making the government of the world approximate, as far as possible, to the justice, equality and wisdom manifest in the government of the world's great author. Nor has the nineteenth century reached its present elevated position by the assertion of truths and principles alone: it has done more, it has tested and proved them and they remain recorded forever. Nor yet by these alone: its discoveries and inventions mark its way and are among its jewels, ranking not after but with its other evidences of intellectual vigor and prog-

ress. Now, more clearly than ever before, the nations of the world are governed by reason and law, rather than by the authority, caprices and whims of human potentates, governing as they allege, by the "Divine right of kings." The glory of the age is in its progress as a whole: indivisible into parts, undefinable as to limits, imperishable as to results. Progress is the first great law of the world, and however developed, is the exponent of the power and intelligence of man.

To this young and vigorous nation,—now glowing in the splendor of its meteor life,—there is yet to be still further and greater progress. Already has it rivalled in useful invention and practical art, some of the older countries of Europe, and today in new applications of machinery and motive power, is leading on to higher triumphs of skill and invention. With the favor of Providence and the restoration of our glorious Union—with its starry flag undimmed and its great Constitution unimpaired—no man, however enthusiastic, can calculate the future progress and growth of this people. The American Union, saved from the parricidal hands of base ingratitude and implacable hatred, at the pinnacle of its fame, who can estimate its influence on the destinies of mankind throughout the world. The countries of Europe have the advantage of ages of time, but before the lapse of another century, under the blessing of Heaven and in the order of things as in the past, the great American Union will rival all existing States and excel the grandest Empires of antiquity, in all that promotes the happiness and

glory of a people. With her distant shores, washed by the great oceans of the world, she meets the rising sun in his coming and her western border holds the golden gate of his chariot. With her ample territory, her inexhaustible resources, her unmeasured skill and indomitable industry; possessing a form of government securing freedom of speech and liberty of action to all the people; with a commerce and navy known to every sea — she is the home of the free, the refuge of the oppressed, and no Empire, no Kingdom, no Principality that the world has yet seen can be compared with her in extent, national greatness or power — and this glorious Union, we may add, more than all things else, constitutes the great material development of the age in which we live.

II.

THE PRINCIPLE OF LIFE.



THE PRINCIPLE OF LIFE.

THE study of the Natural Sciences is the very home of the philosopher, and a most interesting and elevating pursuit to the lover of nature and the man of taste. None other will compare with it in the rewards which it affords to intelligent and well directed effort. Even to those who content themselves with the investigations and reports of others, and are satisfied with the strange, the curious, and the wonderful in nature, to be found in the books, the interesting character of the developments will be sure to arouse their imaginations and give a reverent feeling to their wonder. Natural History, in all its branches, offers so much of variety to the student ; so many opportunities are found for observation everywhere ; so curious are the investigations and the results, that interest is afforded to the highest order of intellect and for every variety of taste. The pursuit, however, is not to be confined to books and the quiet meditations of the closet, suited as these are to other studies, but the broad field of the

vegetable world, bird and insect life, the animal kingdom, the great depths of the sea, and the universe of the stars, are realms of study ample and profound enough for the sublimest of intellects and the most inspired Christian faith.

If anything more were needed to recommend the study of these branches of knowledge, it is to be found in the devotion to them of so many of the noblest men of the race, who have achieved a fame for themselves more glorious and more lasting than that of warrior or potentate ; and yet, so far as the industry and sagacity of men have been able to penetrate, no branch of scientific study is complete nor are the wonders of nature all developed. Nothing in nature is exhausted, as nothing in art is circumscribed. The field of exploration is yet open, whether it be in the stagnant pool, the running river, the ocean, or the air. Nature fills all space ; her forms are of uncounted millions ; the world is everywhere instinct with life and organization. Nor can man devote himself to the study of nature without feeling a new impulse in himself ; his soul expands within him, as the wonders and wisdom of creation and the Creator are opened to his view. Each step in his progress opens a world of life and thought to his apprehension, and he sees, as the unopened mind of man cannot see, a wisdom which he may not comprehend, a power he cannot estimate, an infinity he can neither measure or define, and a goodness which "surpasses the imaginations of men."

Among the wonders of nature, in which so much is wrapped in sublimity, there is no more wonderful thing than the *PRINCIPLE OF LIFE* — in all its manifestations, all its forms, all its degrees ; as we find it living in the rocks, dormant in the seed, the egg, the bud, or existing in the plant, the bird, the insect, or in man. The sphere of its activity is so minute and at the same time of such great magnitude — so delicate in the tiny insect and so gigantic in the elephant — that what it is to the least particle of organized matter it is to the greatest ; what it is to the minutest infusoria, be it so inconceivably small as the fiftieth billionth of a cubic inch, it is to the Behemoth of the land and the Leviathan of the sea — differing between these marvellous extremes not in essence but only in development.

The Principle of Life, whatever it may be, is scientifically described as the growing, warming, moving, thinking power of the creation, for these are manifestations of its presence though they convey to the mind no idea of the thing itself : whether it be an essence or a substance. A spirit and not material it certainly is. It is an all-pervading principle, transcendent in its power, immutable in its operation, working out its purpose. Knowing no decay, annihilation or end, it lives on and lives forever, changing only its form or peculiar manifestation, in accordance with the laws set over it by the Creator. It is, then, an animating essence, a vitalizing principle ; and that which we call death in anything that has life, is only a change in its existence. Some writers affirm that the several species of life, so

to speak, are reducible under these terms : vegetable, sense and thought. Perfect life, says one writer, is composed of motion, heat, sensation and thought ; and he affirms that life may exist without thought, sensation or heat, as in plants, but none of these can exist without motion or growth. At what period of time, or in what way, matter becomes endued with vitality ; when or how vitality becomes active and manifest, in seed or egg, are questions too deeply involved in the mysterious workings of nature to admit of a certain answer. On the physiological problem whether organism precedes vitality or vitality induces organism, the conclusion of Dr. Dickson is, "that life is not the consequence of organization, but that the especial organization adopted is altogether the creation of the principle of vitality, without whose action it could not exist, nor grow, nor find development — and which originates and impresses all its capacities, as well as its mode of growth, increase, maturity, duration, ultimate decay, decline and extinction."*

"Life of any kind," says Stirling, "is a confounding mystery ; nay, that which we commonly do not call life, — the principle of existence in a stone or a drop of water, — is an inscrutable wonder. . . . If this be so, what a thing is the life of a man, which not only is, but knows that it is ; and not only is wondrous but wonders !"

We are often surprised at the frailty of life, as we behold it, and equally surprised in other cases at its

* "Life, Sleep and Pain."

tenacity. We marvel that so slight a cause may take it away ; that so frightful a wound does not destroy it ; that so small a thing will preservè it. A moment serves to extinguish it, though an endless age cannot restore it. If gone to the plant, the behemoth, or the man, it is gone forever to the individual. We cannot see it when it comes, where it is, nor when it goes, nor know that it has left its earthly tenement save by the stillness of desolation and decay which succeeds. It is the most subtle and impalpable of all subtle and impalpable principles. We perceive by our experience where it is, and where it is not, but can neither touch nor see it, yet its presence seems apparent to all our senses, tangible to no one of them. We can call it into being in a thousand ways, but we can recall nothing to life that has lost it. As instruments in the economy of nature we may create, and as agents we can re-create, but it must be in some new form of organism. We cannot restore to existence and vitality the meanest insect or the commonest plant, any more than we can one of our own race. If it has once existed and once ceased to exist, no power short of omnipotence, can restore it even for a moment, to life as it was before. The highest and the lowest, the largest and the least of all animated and existent things, however formed, endowed or developed, are alike subject to the same invariable law.

The Principle of Life, as we see it developed in nature, exists only under peculiar conditions and in obedience to great physical and organic laws. The life of

man hangs upon a chain of circumstances, and Shakespeare says

“Hast nor youth, nor age,

“But as it were, an after dinner’s sleep,

“Dreaming on both.”

It grows feeble by the lapse of time and violations of its conditions ; or it is suspended as it were by a single hair, which in a thousand ways may be suddenly snapped asunder. The machinery of his body may get out of repair, even before it feels the effects of time ; or disease may fix itself upon some delicate part of his frame, retarding the vital action, and life, interrupted in its course, — knowing no decay or disease itself, — leaves the worthless trunk it once animated and returns to its original source. It were as easy to bring back yesterday, or restore to the cloud its thunder-bolt, as to give life again to the body it has once inhabited and once departed from.

Life is sometimes compared to a shadow ; but if the comparison be true in any sense, it gives no idea of the principle or the reality of life. It is impalpable and transient like a shadow, but it is an inspiration — an impulse — and has qualities which characterize nothing to which it can be compared. The long line of Duncan’s kings came like shadows and so departed, and bore the same resemblance to living monarchs as shadows to real life. Nor is there any hereafter to shadow : it is of the present, possessing neither animation or instinct, and is the mere negative of light. With the

light it lives ; in its absence it flits away and all is darkness. Life is light rather than darkness : is free, and joyous and brilliant, and possesses an instinct and an energy which develop themselves into forms and features of strength, symmetry and beauty.

Life is sometimes said to be a spark, and this may be thought a more apt comparison : like a spark it is bright, transitory and as easily extinguishable ; it burns for an instant, and then, not annihilated, goes out like a scintillation ; like a minute taken from time and added to eternity, it is absorbed in the world-wide principle of life. As a spark it has existed ; as a spark it expired. The fire in the spark has mingled with the latent heat of the atmosphere ; the manifestation of life in the being has ceased, and the vital principle, in its pure and undefiled estate, has returned to its primal source. Such is life ! so bright and beautiful, so fleeting, so intangible ! We have it only as a ship has the winds in her sails, an engine its vapor, an organ its voice ; and we know it only as we perceive the evidences of its presence in the animated world around us. It is here, it is gone, is its brief history.

Nothing is more clearly marked, or more fully displayed in the order of creation than a gradation of life, from the lowest and least development upward to the highest ; and it is not merely in one of the great divisions of nature, but in them all : in the mineral kingdom, from the primitive rock to the precious metals or the more precious diamond ; in the vegetable kingdom, from the blade of grass to the gigantic oak ; in the

animal kingdom, from the organized atom or the mammoth mastodon to the highest of created beings, Man. There is an order which pervades nature and which governs in all her most minute and magnificent works; it is equally apparent in the insect tribes, in the animal races, in the birds of the air, in the stars of the skies, where "one star differeth from another star in glory."

In the Mineral Kingdom the appearances of life are of the most incomplete kind; perhaps in any other than a scientific sense the existence of a principle of life in minerals, would be disallowed; but when we consider how much they resemble in some particulars the productions of the vegetable kingdom, it would seem that some kind of life, or growth, must be conceded to them. Some minerals have a preciousness far beyond their intrinsic value, and others have a character of utility which renders them indispensable to man. Precious stones and rare gems are of little real importance, as compared with iron, coal, granite or limestone. These and all other minerals and rocks are undoubtedly subject to certain laws of growth, or aggregation, as are plants. To a limited extent minerals are subject to cultivation and their production and growth are as well understood and as easily promoted as the growth of plants. We may lay out a garden plot, as it were, in a vat of ocean water, and by exposing it to the atmosphere and the heat of the sun, as we do the seeds of plants, the most beautiful crystals are rapidly grown. The agriculture of the mineral world is chemistry, and by

means of this science a great variety of crystalline formations, rich in color and in form, are easily produced. The remarkable process of petrification seems in some sense to connect the mineral with the vegetable kingdom, while the coralline insects, by their lives and labors, unite it with the animal kingdom.

The manifestation of the principle of life in the coral polyp is too peculiar, and its labors of too great magnitude, to be passed over without further remark. Not only are many of the large islands of the Pacific Ocean of coral origin, but reefs and other islands are coming to the surface of the water, the work of this insignificant insect. The polyp forms its habitation by a secretion of lime, and it resembles the buds in vegetation. "The bud generally commences as a slight prominence in the side of the parent; the prominence enlarges, and soon a circle of tentacles *blooms* out, with a mouth at the centre; an enlargement goes on until the young equals the parent in size. The polyps one and all continue propagating buds until thousands and hundreds of thousands have proceeded from a single one." The several polyps have separate mouths, tentacles and stomachs, but beyond this there is no separate individual property; they coalesce and resemble an immense sheet or wall of living matter beneath the water. In the Straits of Messina and in the English Channel, it is said, the polyp has been found with arms ten feet long, and if dissected in halves, each half, by its own energies, will produce the half that is wanted. It appears to be quite insensible to pain. But it is not only

in life that the coral insect is remarkable ; but in death also. Life and death in the zoophyte may almost be said to be concurrent ; a polyp is dying at the base of a branch while a new one is growing at the top, and this is probably the case in sheets or walls of them of many miles in extent. The dead portions are immediately taken possession of by other forms of organized life, more diminutive and more numerous. "Zoo-phytes," says Prof. Dana, "imitate nearly every variety of vegetation. Trees of coral are well known, from six to eight feet in height. Shrubby, tufts of rushes, beds of pinks, and feathery mosses, are most exactly imitated. The cactus, lichen, fungus and all, beautifully represented. Besides these, there are gracefully modelled vases, of three or four feet diameter, made up of branches and sprigs of flowers. There are also coral hemispheres of ten or twelve feet diameter, gorgeously decked with polyp stars, purple, emerald and green." The variety and beauty in the zoophyte world, in which there are four or five hundred species, are as wonderful as they are indescribable.

In the Vegetable Kingdom, the manifestations of life and instinct are both interesting and beautiful ; and have an attractiveness which those in the lower grades rarely possess. In the parlor, in the garden, in the field, in the forest, wherever we observe them, they are always interesting and always repay our care or our curiosity. "What a wonder and a mystery is the plant ! A living and growing and breathing existence,

that speaks silently to the eye and to the sense of touch and to the sense of smell — speaks kindly to man, and appeals to his reasoning powers — but is mute to the most open and wakeful of his senses, and by no verbal speech reveals the secrets with which its full vessels are bursting. How many wise heads have watched, and tended, and studied it — the humble plant — interpreting its smallest movements, the meaning of every change of hue upon its leaves and flowers, and gathering profoundest wisdom from its fixed and voiceless life." The face of the earth is spangled with beauty as is the sky ; and in form, color and variety, flowers may be counted as the stars of heaven. Unlike the stars, they are within the reach of all, without the aid of telescopes, and may be examined and cultivated at pleasure, and their luxuriance, beauty and attractiveness may be increased and improved. The wild flowers by the roadside, commissioned to cheer and delight the traveller, may be transplanted or reproduced at our own door-way and there minister to our enjoyments. The plants of other climes, wherever we are located, may be propagated with the aid of science and experience, so as to make our homes blossom with the choicest productions of other lands. But what were all these without the living principle, the thrilling manifestation of life ? On this their enjoyment depends ; from this we derive that pleasure which no imitation, no artificial creation, however delicate or ingenious, can afford. Nature is inimitable ; her works are neither to be surpassed by art nor excelled by any human inge-

nuity. However beautiful or attractive artificial forms may be, however pleasing their brilliancy or their cunning, they do not and cannot interest us as "a thing of life." They are ever the same in beauty, indicating no change but that of decay, requiring no care but that of the duster, putting forth no new beauties, manifesting none of those wonderful philosophies of life which indicate an infinite intelligence. We cannot tend them as we do the living plant or pet, watching each new development of beauty and intelligence, admiring the ever newness of life, which characterize their growth and being and make them always lovely.

Life in the Vegetable Kingdom, in a much greater degree than in the mineral, or perhaps in the animal, performs its various service for man. It is more under his control, and in a greater degree subject to his labor and skill. It not only pleases his fancy, gratifies his taste, and affords largely the means of supporting his own life, but sustains the animal races, wild and domestic, for his service and his food. There are races of men who subsist almost entirely upon the animal kingdom, and these upon vegetable products, which are in fact the basis of all life.* The vegetable kingdom furnishes man with food, habitation, fuel and clothing, without any enforcement, while to depend for these

* Mr. Joseph Bentley, in his work on "Health and Wealth," remarks, "that all animals that work, live on vegetable food; and no animal that eats flesh works." "All flesh-eating animals keep the rest of the animated creation in constant dread of them."

upon animals alone, if that were possible, would be a state of deprivation and dependence compatible neither with the comfort or independence of the race. To the vegetable creation man is greatly if not chiefly indebted for his wonderful progress. It is to him one half the world, without which he would hardly be able to visit the other half. He could do little on land, and we may say nothing on the ocean, without the aid of the great forest, the cotton and the hemp. Besides the actual necessities of life and the accessories of wealth, it provides him with many of his luxuries, gratifying and refining his taste, demanding his admiration and elevating his thoughts. The beauties of the vegetable kingdom, in all their luxuriance and variety, can hardly be exaggerated, and the impression they make upon the taste and love of mankind, is doubtless far greater than that of the animal kingdom. Every person loves flowers, every one enjoys a fine landscape, and there are few that are not agreeably impressed by the majestic forest. The great variety, vast extent, and grandeur of vegetation, in the different countries and climates of the world, and the many peculiar characteristics displayed in the products of nature, are so many evidences of wisdom in the wondrous adaptation of vegetable life to the uses of physical and animal creation.

In the Animal Kingdom, so numerous, so various and so multiform are the manifestations of life, in the air, in the sea and upon the earth, and so gigantic and so diminutive are they in each of these divisions, that

the most learned men have found it the work of a life to classify and describe only a portion of them. A variety of animal or form of life can hardly be conceived of, in either of the elements, that will be likely to have any originality of design, or parts, or color even. Let the most ingenious and cultivated artist attempt this; let him try to form a new plant or bird, or a new insect, a new shell or flower, and the impossibility of the attempt will become more apparent. It is probably for this reason that man, whenever he has attempted to contrive or create an animal for any purpose has invariably made a nondescript, by a union of two or more of nature's own forms, as the sphynxes, winged bulls, the unicorn or perhaps the mermaid.

The smallest specimen of animal life is so inconceivably minute that it cannot be defined by measure or estimated by weight. Thousands are comprised in the least space we can define, and thousands are included in the smallest amount we can weigh. Prof. Ehrenberg describes some animalculæ found near Berlin reckoning forty-one billions to the cubic inch, or one hundred and eighty-seven millions to a grain. From this inestimable atom, or rather millionth of an atom, perfectly organized and endowed with active instincts, we rise through the nicely graduated scale of animated nature to the most gigantic of creatures on the land and the monsters of the sea. Each and every one of the many thousands of species and varieties, intervening between these extremes, is endowed with diverse habits and instincts, all peculiar, all adapted to certain

conditions of life, and tending to the perpetuation of its own existence and the continuance of its species. Nothing is omitted; nothing fails; nothing errs: so far as human observation may extend or human wisdom decide, all are complete and perfect in their kind — in the least as in the largest — in the most beautiful as in the most powerful — in insect, bird, beast or fish — all are alike fitted for their condition and the circumstances which surround them. All space, however improved, known or unknown, is occupied with forms of life prepared for it and adapted to it.*

While we adore the wonderful wisdom of the Creator in his works we are struck with the mighty plan adopted to sustain and perpetuate the principle of life in its multifarious forms. The great law of sustaining life, as well as its creation, seems to be found largely in the sacrifice of life in preëxisting forms. Everything that lives, sooner or later, is sacrificed, or made subservient to life in some other form. Goethe says of this transformation of animals, "I would call these transmutations wonderful, if the wonderful in nature were not that which occurs every moment." Every creature or plant that dies, or seed that decays, as it must, supports life or gives it, to some development or organization different from itself; and this law of change holds true throughout the universe, — even

* "The mind glances at the mighty sweep of creation, and is lost and overwhelmed in the magnitude and minuteness of the works of God. The same hand that fashions a star, orders the harmonies of atomic spheres." Prof. Lassell's Lectures.

of the stars, of worlds and systems of worlds. — Change comes to all things, in atoms and aggregates, gradually but surely. To a very small extent these changes come to the knowledge of man, through successive generations, but the change which comes to him in a portion of time as a grain of sand to the seashore, limits his vision to the marvels of a brief life. Geology in developing the history of the earth, gives an age to time and life hitherto unknown.

It is not, therefore, the butterfly only — nor man only — that has an after-life, a new life, but all things. The seed decays to give life to the tree or plant. We gather not that which was sowed of anything. In this sense death and life are convertible terms. The world can realize no such thing as death in the sense of annihilation — since death and decay is life in a new creation. The counterpart of death is life — not that life which was but that which is. Life is the universal law; death a circumstance of life, and life for life the rule. Life subsists not alone on death but on life itself, so that, though Polonius supped not where he ate but where he was eaten, it is possible, in the vegetable and animal kingdoms, to live and be lived upon, to eat and be eaten at the same time, — for parasites are innumerable. Even shell fish, among the lower orders of animated nature, make their habitations upon the coverings of each other, and sometimes expel the victim from his own house. The plant or animal lived upon has a precarious life, sure to be sacrificed in the end to the rapacity of its besetting foe. Parasites often

destroy superior animals, and it is more than probable that minute animalculæ live upon each other.

Some curious observations are to be made in this connection. A peculiar kind of food seems to be provided for and adapted to every living thing, upon which it lives and grows, whether it be mineral, vegetable or animal. Man cooks his food, and seldom, with some exceptions, eats anything raw, and more rarely still anything that is alive.* No other animal cooks its food, and some will not eat it if cooked. Some of the carnivorous animals are equally dainty, and will not eat the flesh of any animal found dead — dying of disease or age — but only that killed by themselves or still in warm blood. The dead, the diseased and dying, are left for the scavengers of the forest, who eat this and not living food.† So it is with birds and with fishes : some kill their own food or eat it alive, some eat that which is dead, and others eat animal and vegetable food indifferently. Bears have been known to leave unharmed the bodies of men who counterfeited death ; and birds have declined as food, not only dead insects, but others whose instinct leads them to put on the semblance of

* Oysters “are among the few animals which in Europe, are not merely eaten raw, but even in a living state.” [Bingley’s Useful Knowledge.] He does not name any other “animals” so eaten. The Esquimaux and other barbarous people eat raw flesh.

† “The common Hyena of Southern Africa may be regarded as the scavenger of the deserts, who feeds upon the putrifying remains of dead animals, and especially upon fish thrown upon the banks of rivers, and thus prevents the air from being filled with pestilent vapors.”

death. Some beasts eat fish ; some fish eat meat, vegetables or cooked food ; birds eat fish and small animals, and even shell fish, generally when they are alive. Rare shells are often obtained from the stomachs of birds and fishes. Cats and dogs rarely touch a dead animal, although they will eat the flesh, raw or cooked. As a common thing flesh-eating animals will eat each other, either dead or alive, reptiles eat reptiles, fish eat fish, but there are doubtless some exceptions to the statement as a rule. The various races of animals, fishes and birds, seem to have their scavengers, for whose use the dead and dying are commonly left. But for these wise regulations diseases might be propagated among them, and the forests, the ocean, and the air, become tainted with putridity and disease.

The adaptation of life to temperature is another of the marvellous manifestations of wisdom. Animals, birds, fishes, insects and plants, have certain peculiar adaptations for the enjoyment and preservation of the life that is given to them, in temperatures of heat and cold in which they are placed and out of which they cannot live. In all these, the principle of life, eminently sensitive to circumstances, is impaired, if not speedily destroyed, by a temperature different from that in which it was designed to subsist. Heat and dryness no less than cold or moisture, in excess, will destroy plants and organisms which are not specially adapted to their endurance. To the most delicate of these a slight departure from their natural temperature produces almost instant death, nor can the most hardy long with-

stand a change uncongenial to them.* Man himself is not exempted from the influence of this great law, and in the absence of any natural covering for his body, by his reasoning powers he is enabled to protect himself from the painful effects of cold or relieve himself from oppressive heat; but it is well known that the extremes of heat and cold often prove fatal to him. It is equally well known that animals from the polar regions of the earth suffer from the heat in more temperate climates unless furnished daily with ice in their cages. — There is undoubtedly a degree of cold, as there is of heat, which no animal can endure without adequate protection. The “salamander,” represented as able to live in the fire, is as fabulous as the phoenix. Fish of the smaller kinds, it is sufficiently ascertained, will survive frosts which suspend animation for many hours, and on being placed in water will gradually regain their vitality; and there are plants in the northern countries, and even in the Arctic Regions, which survive a very low degree of cold during the winter, and renew life as it were again in the spring.

Temperature, also, has much to do with the economies of life, as it is largely by it that animals, birds, fishes, and plants, are kept within the limits designed for them, and prevented from spreading over the world.

* “Every spot on the earth’s surface, from pole to pole — mountains and valleys, the dry land and the water — has its organized beings, which find around a given centre all the conditions necessary for their preservation.” Dr. Morton’s “Types of Mankind.”

Many animals and birds are migratory and change their abiding places with the changes of the seasons; and the same is the case with many kinds of fish in the sea. Both birds and fishes go to the south or the north as the seasons change; and fishes resort in cold weather to deep water, and birds for the same reason fly nearer the earth. Huet, a French writer, mentions that "swallows in Sweden, at the approach of cold weather, plunge into the lakes and remain there asleep and buried under the ice until the return of spring. In other places they retire into the caves and rocks." In some caverns along the banks of the Orne, near Caen, "clusters of swallows were found suspended in winter, like bunches of grapes, from the roof of the cavern." It was thought at one time that the great Condor passed its winters in the Lake of Como, but it is now known that it returns to Africa during the cold weather at the north. In severe weather the larger animals seek shelter in the cover of the forest, like the reindeer in Siberia, and the smaller animals, like the mole, burrow into the earth, as also do many bugs and insects. Peculiar localities appear to be adapted to birds, fishes, and animals, in the sea and on the land, and these are very rarely departed from. This provision, however enforced, serves to keep the animal kingdom, to some extent, within fixed limits, as the fauna of a country. There are, the world over, well known resorts of birds, fishes, and animals, which are used for some purpose by man, and in these they are always found.

There is a marvellous wisdom in that instinct of life, implanted in every living thing, which seeks its own preservation. Even plants manifest the same instinct, in seeking nutriment or moisture, at considerable distances, and also in the healing of wounds or putting forth new foliage. However prone the animal or insect may be to prey upon other forms of life, and to sacrifice these to its appetite or rapacity, it is never forgetful of itself. Let a spider be disturbed while feasting at leisure upon a captured fly, and its first movement is to flee from danger to itself, sometimes feigning death, but it will show fight in defence of its eggs. The fishes of the sea, the animals of the forest, the birds of the air, and the various insect tribes, whose lives are, for the most part, sustained by a sacrifice of lesser and inferior lives, are careful, and agile, and cunning, in the preservation of their own. Each has an instinctive dread of the rapacity of its superior, and an instinctive desire to sacrifice its inferior to its own enjoyment. All of these, mankind included, seek to destroy life, and by the same innate impulse will dare even death itself to preserve their own. Nature has not only endowed them with the desire to preserve life, but has given to each living thing some peculiar quality or force in aid of its instinct. Some are given speed of limb, or wing, or fin ; some are armed as with cannon or an electrical battery ; some have the power of discoloring the water or vitiating the air ; some are covered with hard shells, prongs or scales ; some have poisonous teeth or fangs ; some have sharp horns, quills, talons, or

claws — all of which are designed and used against inferior orders of life, and for defence of their own against creatures of greater need or superior strength. The torpedo fish no doubt uses its peculiar power as well to capture its victims as to protect itself from its enemies. The bee is furnished with an instrument of defence and means for obtaining its food. Shell-fish have no other protection against their enemies than their covering, and are much too slow of motion to be able to escape from their pursuers. Consequently with most of them, they are readily captured and easily destroyed. Those most exposed are provided with stronger and heavier shells, some of these many times the weight of the living structure, and many of them have rough and sharp-pointed shells, not easily to be swallowed by even larger varieties of fish. But the most curious of all shell-fish, in this respect, is one which by the impulse of its instinct, fixes upon itself small stones and bits of shell, so projecting as to render it comparatively secure from such a fate. Another species of the same family seems to have a fancy for its own adornment, and fixes upon its habitation transparent pebbles and bits of shining shells. There is nothing, peradventure, in the sluggish race of the almost inanimate oyster, that looks so much like intelligence. As a class of animals shell-fish can hardly be said to do anything more than live.

Perhaps it is true that Sleep is one of the most marvellous attendants upon life, as it is one of the most universal. While it seems to be a counterfeit or semi-

death, it is as truly one of the immediate and necessary functions of life as wakefulness. It is not in man only that sleep is manifested as a condition of life : all animals, birds, insects, and fishes sleep, and plants enjoy a period of rest in all climates, and many plants are supposed to rest at night in their growing season. In the Arctic Regions, it has been said that plants droop and the leaves sleep, while the sun is high in the heavens, as they do at sunset in more genial climates. It is certain that animals take their rest each twenty-four hours in the Arctic Regions as they do elsewhere.— Sleep is as necessary to life and its continuance as any other condition on which life depends, and a deprivation of needed rest to anything that has life, must prove fatal to it. Mysterious as it is, and sometimes full of awe and apprehension, it is a law of the utmost beneficence to mankind and universal nature. Though we seem sometimes in sleep to be in the presence of the Deity, or to be surrounded by his good angels, or his wondrous works, or are alarmed by the workings of our own imaginations, it affords us enjoyment, refreshment, and invigoration for renewed labor. It has been said that without Hope and Sleep man would become inconceivably wretched. It would be truer philosophy to say that without Hope man would be wretched ; without Sleep he could not live and would be insensible to wretchedness.

But to man in man the manifestations of life are of the deepest interest. In him while they are equally mysterious and wonderful, they are of a higher order,

a deeper significance and an immortal tendency. In him, the mere development of the animal instincts and powers is but half the wonder ; the moral and intellectual manifestations are still more mysterious. In the physical creation of the world, in the vegetable and to some extent in the animal, we seem to see the laws of the mechanical and artistic in life ; but in the higher faculties and nobler aims of man, we more clearly see the Divine impress, the omnipotent mind and the transcendent wisdom of the Creator. Life, existing by the heavenly spark, may seem to be a thing of circumstances, a result of precedent laws, a sequence of organism, a manifestation of creative power ; but in the unbounded intellect, in the unlimited power of thought and imagination, in the capacity of acquiring knowledge, in the deep love of the human heart, in all the noble aspirations of the human soul, we behold a degree of wisdom and power above all mere organism and far beyond the mere contingencies of chance.

Of all the manifestations of the principle of life in this earth, nothing has been formed in vain. Everything has its purpose, designed by Providence for some good and useful end, which it is not always given to man to discover. The sparrow does not fall unnoticed, the lilies of the field bloom not unseen, the beasts that perish fulfil their destiny ; how certain is it then that man, the highest of created existences, is the peculiar care of his Maker ; that the thoughts of his heart and the works of his hands are all considered whether they

be of God or not ! Life is given for man to enjoy — for the physical, moral, and intellectual development of his nature — so to be enjoyed and improved as to result in honor to his Creator and something more and higher than any mere glory of this world to himself. He stands by the fiat of his Maker, at the head of the creation, and occupies a position of power and responsibility, neither to be avoided, neglected, or overlooked. His is a life of preparation and duty — both for this world and an unending hereafter. All nature teaches us the deep and sublime lesson that life is eternal — that only this tabernacle passes away — that the spirit which animates it lives on amid the beatitudes of Heaven, obeying laws, cultivating higher powers, realizing a more glorious destiny.

Life as we see it all around us is the joy and gladness of the earth. All things were dull and dank and gloomier than chaos itself without life. The world were no world without it, and would roll on in space, with its primordial power, a thing whose only glory would be that it was the unfinished work of the great Architect. Barren and desolate and voiceless, as it was in the beginning, a waste, wild and wearisome, it is impossible for us to conceive the horror and terrifying blank of an inanimate and therefore Godless world ! The heavenly music of the spheres, repeated to us in the almost equally heavenly music of earth's choristers, were lost and in vain, if we could conceive it in a world without the impulse and instinct of life. In a moral sense, it is beautifully said, " God is love ;" equally

true is it, in a physical sense, God is life. The Infinite Being who imparts to every living thing its vitality, its instinct, its intelligence, himself lives in all that he has created. All the evidences of life on the earth; in the air, or in the sea, are the manifestations of His being, the works of His hand, the results of His Infinite Wisdom.

“ His creating hand
Nothing imperfect or deficient left
Of all that he created.”



III.

ORIGIN OF THE RACES OF MEN.

ORIGIN OF MAN AND THE RACES OF MEN.

IT would be curious and perhaps instructive to consider how much time and talent have been employed in the investigation and discussion, not merely of questions of no practical usefulness, but of questions whose solution are beyond the reach of man's inquiries, and which no amount of research and no possible quantity of argument can ever determine. Volumes on volumes, enough to constitute another Alexandrian Library, have been piled up by writers, many of which are of little real value and have only served to exercise the ingenuity of their writers, puzzle the intelligence of their readers, and illustrate the finite and fallible nature of the human understanding. These have not been confined to metaphysics or ethics, or speculations in political economy; but they have included topics in the natural sciences, in classical history and in the arts. Nor have these questions been raised altogether by the visionary, or the idle : learned men and scientific investigators, whose claims in science

and philosophy are admitted, have been carried away, in past time as now, by their own ideas or theories, and have labored to establish hypotheses upon the most unsubstantial structures.

Some of these topics, however, may have been worthy of the time and talent which have been devoted to them, even where no positive result has been attained. They have tasked the genius and ingenuity of man, in the building up of theories and in their annihilation, and have enlarged his powers of research, opened new regions of thought to his intellect, fortified his intelligence and strengthened his faith. Among these subjects that of the *ORIGIN OF MAN AND THE RACES OF MEN*, holds a prominent place. In the discussion of this subject, our country has furnished very able contributors, whose various works have attracted much attention abroad and placed their authors in prominent positions among the most eminent naturalists of Europe. The works of Gallatin, Morton, Pickering, and Bachman, have exerted much influence in the investigation of this subject, while the speculations of the Rev. Dr. Smyth and Prof. Agassiz, in support of adverse theories, are well calculated to sustain the interest in the subject and give a broader and deeper direction to the inquiries and researches pertaining to it.

The commonly received belief of the origin and dispersion of man over the earth, derived from the Mosaic account of the Creation, is so well established in the general mind, that it is the part of prudence, if it must

be disturbed at all, to approach it with caution and with reverence. A proper regard for the public feeling, for the honest convictions and inbred prejudices of a people, through their whole lives taught to hold the teachings of the Bible sacred, would prompt this caution and commend this prudence. It might even be worth considering whether it were wise, upon the whole, to discuss a question of this importance, which may in some degree unsettle the public faith, for no adequate advantage, or for the slight, uncertain benefit, even to science, to be expected from its solution — if that were attainable. We do not, however, apprehend any danger to our reverence for the Bible, or our faith in its teachings, from such a discussion, conducted as this has heretofore been ; for however science may regard the matter, or whatever results may appear to be attained, the public confidence will hardly be impaired, and the probabilities are in favor of a firmer establishment of scriptural authority.

The origin and physical history of Man has never ceased to engage the attention of naturalists and philosophers, although the subject has only recently been allowed to take its place as a definite branch of science. Ancient and modern philosophers have exhausted their ingenuity in endeavoring to account for the origin of man in some method different from that related in the Bible. Such distinguished naturalists as Linneus, Buffon, Helvetius, and Lord Monboddo, rejecting the Mosaic account altogether, professed to believe that the races of men originated from that of the monkey ; and

Dr. Darwin is the author of a curious hypothesis referring the origin of man to an aquatic nucleus, resembling an oyster, which after drifting about for ages on the water, imperceptible at first, sought nourishment and growth on the shores of the primeval ocean — an amphibious animal with gills, and afterwards a terrestrial animal with lungs and sexual characteristics.* In addition to these views — too manifestly absurd to merit further description — the Epicurean and nearly all the Grecian and Roman philosophers, (excepting those who believed mankind to have been self-existent and eternal,) held to the notion that man originally sprang from the earth, like a plant, and this, according to their philosophy, was the common origin of all animal life. Some philosophers even supposed that men and animals might be grown from the earth, by the planting of seed or some portion of the man or particular animal desired. Ovid relates in his “*Metamorphoses*” the “story of Cadmus,” which seems to be a compound of false philosophy, mythology and fable. The story

* The anonymous author of the “*Vestiges of Creation*,” favors a similar notion called the “development theory,” which is, says a writer in the *North American Review* for January, 1851, “that the first organized being was an animated *atom* : which gradually became an animal of the lowest form, and then slowly expanded into a mollusc, which afterwards grew into a fish ; this came, after many attempts [?] on dry land, and converted its fins into legs and became a reptile, and the reptile shot out wings and became a bird, and the bird dropped its wings downward and made legs of them and became a beast, and the beast after a time rose erect and became a man.”

is this : "The sons of Agenor are despatched by their father in quest of their sister, — with injunctions never to return until they find her, — Cadmus consults the oracle of Apollo, and is directed to build a city where he shall see a young heifer stop in the grass, and to call the country Boetia : he finds the heifer according to the instructions of the oracle and sends his companions in search of water, all of whom are devoured by a dragon, which is destroyed by Cadmus with the assistance of Minerva — The goddess commands the hero to sow the monster's teeth in the plain, which is no sooner performed than armed men instantly spring from the ground, who direct their rage against each other, till all perish except five, who assist Cadmus in building the city." The poet relates a part of this story as follows :

"He sows the seed at Pallas's command, '
 And flings the future people from his hand ;
 The clods grow warm, and crumble where he sows,
 And now the pointed spears advance in rows ;
 Now nodding plumes appear, and shining crests,
 Now the broad shoulders and rising breasts ;
 O'er all the field the breathing harvest swarms,
 A growing host, a crop of men and arms."

This creation of men exceeds all others in the marvellous, since they came not only full-grown, but clothed, armed and perhaps otherwise supplied for battle. — In the fabulous creation, after the deluge, by Ducalion and Pyrrha, it is alleged that they threw the bones of their grandmother behind them — those thrown by Du-

calion produced men; those thrown by Pyrrha produced women. Of course these visionary fantasies are universally rejected at this day, and there are none now to "do them reverence." The waking dreams of the most learned of heathen philosophers and the wisdom of the later schools, — profound as they were once deemed — are alike rejected by the common sense and common feelings of mankind in a more enlightened and Christian age. But behind such fabulous and visionary fantasies, there must have been even to them a great First Cause, which those lovers of wisdom were unable to define. They did not think it necessary to inform us who made the seed of the human plant, who formed the embryo oyster, or who created the improvable monkey; or if these were the mere organisms of laws acting upon matter, who established the laws of so much wisdom and power, or created the earth of such mysterious fecundity. In the end, therefore, in the light of science and revelation, no theory is acknowledged but that of the Bible; no moving First Cause but God. The theory of the monkey — the simplest and the most audacious — holds out the longest, but this is now almost universally repudiated.

Passing by the first creation of man, that which interests naturalists most is the origin of the different races, now occupying the earth, and whether they have resulted from one creation and been dispersed from one common centre or from several distinct creations and as

many centres. Within a few years the latter hypothesis has seemed to gain new proselytes and new advocates. One of its most recent supporters maintains as his belief, "That the view of mankind as originating from a single pair — Adam and Eve — and of the animals and plants as having originated in one common centre, which was at the same time the cradle of humanity, — is neither a biblical view, a correct view, nor one agreeing with the results of science." While he admits that the popular belief, ascribing to "all living beings upon the earth one common centre of origin, from which it is supposed they, in the course of time, spread over wider and wider areas," is founded upon the Mosaic account, he is satisfied that Moses "never meant to say that all men originated from a single pair, nor that the animals had a similar origin, from one common centre or from single pairs." He does not, however, enter upon the scriptural argument, to which his theory is opposed, not having as he says, "the knowledge necessary for undertaking such an investigation." That any one should venture to affirm a multiple theory of the creation against an acknowledged relation which rests on scripture authority, without any attempt to show the failure of that authority to sustain itself, would seem to be a little presumptuous. It appears to us, — possibly we are presumptuous, — that the "knowledge necessary for such an investigation," is in no small degree a pre-requisite in the discussion upon which he has so zealously entered; and that the admission made disqualifies him, in part, for the position

which he has assumed. The writer says, "we have a right to consider the questions growing out of man's physical relations as merely scientific questions, and to investigate them without reference to politics or religion." Perhaps this is so; but can the creation of man and the peopling of the earth, be merely a question "growing out of man's physical relations?" We do not so understand it. It is a historical and a biblical question, from which his physical relations have grown. If it were not so, are man's physical relations to be discussed and presented in a light differing from the received theory of two thousand years, without any overthrow of that theory, on which the convictions of mankind have rested for so many centuries?

The writer already quoted asserts that the common interpretation of the Mosaic account of the peopling of the earth from a "single pair, Adam and Eve, is neither a biblical view, no one agreeing with the results of science." Passing over the boldness of these assertions, it will hardly be expected, we think, that any one should attempt to show that the peopling of the earth from a "single pair, Adam and Eve," is, nevertheless, a biblical view of the subject. It is the direct and most obvious teaching of the Bible, which explicitly declares Eve to be "the mother of all living." He also says that the interpretation, or rather the record of the Bible, "does not agree with the results of science." We apprehend, however, there might be some disagreement between the Mosaic account of the Creation, as we interpret it, and the results of science, as we have

learned them, without greatly discrediting the Bible.— We must, in fact, be permitted to doubt whether the results of science, in essential particulars, can be said to agree—as the Bible certainly does not—with the modern theory of divers progenitors of the human race; of several pairs of Adams and Eves, white, red, copper-colored and black. For example, with how many pairs of Adams and Eves can it be said that the results of science, as we have arrived at them, do agree? Prof. Agassiz, without answering the question, merely says they do not agree with *one pair*; nor do they with two, or four, or six, or a dozen. Naturalists, who have sought to establish a theory of the origin of man, and the peopling of the earth, *different from that of the Bible*, have determined that there were *three* original races.* To these three other naturalists add two more, making five; others† affirm the existence of seven forms or species, wholly distinct; others, including one of the latest explorers,‡ describe eleven: two white, three brown, four blackish-brown, and two black; and it is stated that a recent French writer insists that there are no less than sixty original races of men. Certain it is that these different conclusions, made as they are by the most distinguished naturalists of the time, cannot all agree with the “results of science,” be these what they may. Prof. Agassiz does not fix upon any defi-

* “The Natural History of the Human Species,” &c., by Col. Hamilton Smith, Edinburg, 1848.

† Fischer, in his *Synopsis Animalium*.

‡ “The Races of Men,” &c., by Dr. Pickering.

nite number ; but when the Bible unity and its sublime history are departed from it will be found very difficult, we apprehend, to fix upon any stopping place — sixty even may not be too many to accommodate, or confound, the boasted results of science. Nor are we told, by any hint or assertion, whether these numerous anti-biblical creations were coëval with each other, or with that recorded in the Bible, or whether they occurred at different and remote eras. We conclude, therefore, upon the statements now made, that the Bible does teach that the peopling of the earth was from a single pair — Adam and Eve — and that the results of science, if they fail to support the Bible unity of the human race, cannot be made to support any of the theories yet offered to the world.

As we do not wish to avoid the argument respecting the results of science altogether, let us inquire for a moment, what are some of those results, which bear upon the question of the origin and dispersion of the human race on the earth. In the physical history of man, after the Mosaic account of the creation and successive generations to the period of the Deluge, the general history of the world affords but little reliable material, unless it be found to some extent in the modern science of geology.* From the creation to the es-

* Recent discoveries would seem to prove that man existed on this earth many ages before the earliest historical period ; and geologists now divide this period into three ages, viz : the *stone* age, when stone was alone used to form implements, the *bronze* age, and the *iron* age — each being in many particulars, a step in advance of the preceding. It seems to be settled by abundant evidence, tha

tablishment of governments, we can learn nothing of the origin of the race from history, and know nothing only as we find evidences of man's existence in the ruins of ancient empires, cities and works of art. Mythology and tradition are speechless to any good effect, and for thousands of years the most learned and patient investigators can only tell us of something which they have discovered indicating the existence of man far beyond that remote and undefined period. It is from

man co-existed with the fossil mammoth and other of the earliest extinct species of mammalia. Twenty years ago the Quarterly Review said, "While all anterior conditions of animal life, as they have successively occurred, are represented to us by innumerable vestiges and fossil remains, no trace whatever is found of any human being until the epoch in which we have our present existence. Bones, shells, impressions of the most delicate structure, even the passing footsteps of animals over a moist surface all these have been wonderfully preserved to the inspection of this later age— * * yet, of man, we repeat, no one vestige is to be found; certain though it is that this must have happened had his existence been laid among any of these first creations of earth."

The North British Review of 1849, also spoke on this subject as follows: "Everything that we see around us — the soil and its productions — the jungle and its denizens — the ocean and its life, are all of modern origin. Man himself, as the representative of his race, is but an upstart in the chronicle of time. The primæval antiquities of our planet, and the records of its material life, lie buried in the crypts beneath us. Its history is engraven on walls of stone, in characters which long baffled his ingenuity; but the geologist and the naturalist have at last decyphered them. He whose power is infinite could have called the Earth into being in the very instant which preceded the creation of man; but that power has been exercised through other agencies, and in conformity with material laws; and long cycles of years have thus been required to prepare the earth for the reception of beings intellectual and immortal."

Geology and Ethnology have changed all this.

science and its results, after the Bible narrative, that we learn much that we know of the physical history of man; and its indefatigable devotees have sought for knowledge of him in every direction and under every embarrassment. Physiology has shown, as far as the analogy of natural history can decide the question, that all the varieties of men, however they have been created, are of one species, as the Bible shows them to be of one origin. This result is not only confirmed by the possession of coincident physical and spiritual faculties, but by identity of diseases to which all mankind are liable. The histories of languages have also furnished some striking results which strongly sustain the identity of species and their origin from one common centre.

The foundation of the argument for a multiple creation of man rests upon the fact of the existence of several varieties of the human race, marked by certain external differences. These differences, of which color is the most obvious, are admitted by all, and it is contended, have resulted from difference of climate in which they have lived, variety of food, habits of life and other local influences. The arguments and numerous results of science which sustain this theory must generally militate with that of a multiple creation, and some of these results it is impossible to dispose of satisfactorily under that theory. No law of nature is better understood or admitted than that by which she accommodates herself to existing circumstances and yields to persistent influences. The law is manifested in all

her works, and so much potency has been accorded to it by some naturalists as to constitute it the basis of the argument that the monkey races have, under favoring circumstances, gradually been changed by its silent operation, into human beings. But the law, it is to be observed, is not one which under any circumstances will change one animal into another,—creating new organs, new faculties, new powers,—but only modify the same animal, the same plant, the races of men, when they are placed under new conditions. It will operate to improve the monkey, as a monkey, when brought under the influences of civilized life, as it does the dog, the horse, or the swine, making them susceptible of instruction. But no degree of improvement, no power of imitation, no effect of food, no operation of climate, no lapse of time, can endow any of these with reasoning or intellectual powers; give them hands, the erect form, a smooth skin, or the wonderful power of the human voice. The operations of this law are to be observed in every community, in the different influences of country and city life. Take the native indian of our own country, and observe the remarkable differences between him and the white race, and how essentially he changes his nature, in a single generation, by mingling with the superior race. In a wild state, amidst his hunting grounds, and in his barbarous habits, he remains an indian. On the approach of civilization, with a change of customs and manner of living, he gradually mingles with and is finally lost, as an indian, in the dominant race—the copper color and high cheek bones entirely

disappearing. The native Africans and their descendants, among the freedmen of the Southern States, have undergone remarkable changes from the original types of the race. The free blacks of the north, in the period of a single generation, exhibit still greater changes, owing to their more intimate intercourse with the white race. The thick lips and low, receding forehead, have been obliterated, and they now approach the standard of European features: the short, curly hair has become longer; the broad, flat nose is modified, and they are greatly improved in intellect.

Instances of change or modification and adaptation to circumstances are innumerable; are even of our own day and generation, and are some of the conclusions of scientific observation. They go far to show that the differences now to be seen among mankind may be traced, in the indefinite past, to man's social and physical relations and do not necessarily result from or indicate a difference of origin. The books are filled with evidence on this subject. Page after page might be quoted to show how climate has affected and changed the color, size and stature, of men, animals and plants; how manners and customs have produced changes in physical appearances and social habits, as in all the domestic animals and some races of men, — and perhaps more than all, how time in the unfathomed past, and the original dispersion and subsequent mingling of men of the early nations, have changed and multiplied the characteristics and peculiarities of mankind.

Among the animal races and especially among the domestic animals, where the modifying influences have been active, there are as many varieties, — the product of one known species, — as are found among men, even adopting the highest number of the French enthusiast. The differences which these varieties exhibit are as great as those apparent among the human race. Dr. Bachman* details, with great minuteness and truth, “the principal facts in reference to the occurrence of varieties among all our domestic animals. He describes the horse and its several types, — the elegant Arab racer, the ponderous dray-horse, and the active little pony of the Shetland Islands, — all originating from the wild horse of Tartary ; our common cattle with their various breeds and forms, an Abyssinian variety with immense horns and a Scotch variety without any, some as large as a small elephant and others, as the Surat ox, the size of a large dog ; the hog, descended from the wild boar of Germany and giving origin to the Chinese hog that weighs on an average only fifty pounds and the Berkshire sometimes weighing twelve hundred, the Cuban variety double the size of their Spanish progenitors and with toes half a span long, and the Hungarian hog characterized by one solid and undivided hoof like that of a horse ; the sheep springing from the Corsican musmon and originating the large, active, goat-like African sheep, destitute of wool, the fine fleeced merino of Spain, the coarse woolled South Down of England, and

* “ Doctrine of the Unity of the Human Race examined on the Principles of Science,”

the common sheep of New England ; the dog with its indescribable number of varieties of every size, form, color and habit, [of which more than fifty are known] ; our domesticated birds, fowls, turkies, geese, ducks, pigeons, in endless varieties ; and even our smaller animals, the Guinea pig with its various colors, the Barbary dove, with a black and white variety, the canary bird, of which twenty-nine varieties are offered for sale by the bird fanciers, and the gold fish, [native only of China and Japan,] which has formed new varieties in ponds of England and America. In each case, Dr. Bachman traces all the varieties named to an original stock, and maintains that it is impossible to find any legitimate grounds for distinguishing one of the numberless and curious forms, as a distinct species. In all these instances, the process of domestication varies the original type, especially when the animal is removed to a distance and subjected to the influences which arise from change of climate, food and manner of life." In some cases the original stock has been entirely run out by a new breed, as in Hungary, where the solid-hoofed hog has superceded the ordinary variety. "The proof that the varieties pertain in each case to one original stock, is found in the fact that similar varieties are springing up constantly around us. Every one knows how many varieties of cattle and swine have originated from the common breeds, and been disseminated through Europe and America within the memory of a single generation. A variety of the horse, similar to the Shetland pony, is produced in the marshes of Carolina,

and another of the same diminutive form is noticed by voyagers at the Falkland Islands. A variety of cattle, similar to the long-horned Abyssinian breed, has recently originated in Western Louisiana. The solid-hoofed hog of Hungary has originated again from the common variety, on the Red River in Texas. Thus before our eyes the very process is going on, which has filled the world with so many varieties of the domesticated animals ; every change of size, form, color, &c. originates and perpetuates itself, under the changed habits of life which the process of domestication in distant localities involves."

Dr Bachman, in his able and elaborate work, shows further that varieties have resulted from the ass, the rat, the mouse, &c., which had been denied, and adds, "that it can be shown from the history of every domesticated species of quadruped or bird, that they all without a solitary exception, have branched out into striking and multiplied varieties ; and that these varieties have become more numerous and striking in proportion to their wide dispersion and change of climate and habit."

The same argument, far from showing a multiple creation of any species of animals, is to be found in the vegetable kingdom. Scarcely a vegetable or fruit can be mentioned that has not been greatly changed and improved in form, size, color, flavor and other qualities, by cultivation and by transfer from the country of its origin to other countries ; and the varieties formed of each, and still increasing, are as numerous and as permanent as the varieties seen among men or animals.

“The corn-plants, such as are found under cultivation, do not grow wild in any part of the world.” The seeds have been spread from India, Persia or Italy, or the sepulchres of the Egyptian kings, and in some instances have changed their generic character.* What greater changes and what greater varieties can be pointed out in the human species than can be referred to in the potato or cabbage—two of the most common esculents. The potato originated in Chili, and one of the earlier voyagers, who found it there, describes it as generally round and as large as a walnut.† It was introduced into England and Ireland, as is commonly believed, as a fruit, and when one of the beautiful “green apples” which it bore, was brought to Walter Raleigh, he ordered the weed to be dug up, when to his surprise the gardener found a bushel of potatoes at the roots. All the varieties of potatoes which we now know, beyond any question, are the produce of one original species, which has been disseminated in innumerable varieties over a great part of the world—a fit type in the vegetable kingdom of the varieties and differences in the members of the human family. So also with the common cabbage—from an obscure and apparently worth-

* Professor Satapie of Bordeaux, affirms that the *Egilops ovata*, a wild grass of Sicily, under cultivation has approached the character of wheat.

† A potato was produced at Portland, in Oregon, a few years since and brought to New York, which was nearly the size of a man’s head, 23½ inches in circumference, and weighing 8½ pounds, and a still larger one is said to have been produced in California.

less plant, having a few straggling leaves, it has come to be one of the most valuable of vegetables, varying in shape, size, color and quality, from the mammoth drum-head to the delicate cauliflower and the crisp savoy.—The heads of men, whatever the color of their hair or shade of complexion, present no greater varieties in form, size or other peculiarity than do the varieties of this vegetable. With respect to other vegetables, fruits or plants, the results of scientific observation are the same, and no one needs to be told at this day how they are improved by cultivation, grafting, hybridizing and other methods, by which new and permanent varieties are produced. The origin of the cultivated apple, said to have been in Central Asia, is not positively known, and there are now on the catalogue of the Horticultural Society of London no less than fourteen or fifteen hundred different and distinct varieties—as various and far more numerous than those of the human race. In flowers, great improvements and new varieties have resulted from cultivation: probably most varieties of the pink, rose, tulip, camelia, poppy and other flowers were originally single. They have been made double and of great variety by various methods of cultivation, and many of them, like cultivated fruits, cannot be reproduced from their seed.

We have thus shown that the hog, the dog, the sheep, and other animals; the potato, cabbage and other vegetable productions, in all their numerous varieties, have originated from single stocks or plants, and are as widely spread over the world as the races of men;

and therefore, that these as some of the results of scientific observation, indicate how varieties have been produced, and agree with the scriptural narrative of the origin of man, going to confirm the unity of the species, (which Prof. Agassiz and naturalists generally, allow,) by a unity of origin. The great law of nature, of which we have spoken—the law of change—by which she conforms to climatic and other influences—seems to be designed by Providence for the especial well-being, comfort and accommodation of man, the higher animal for whom the world itself was made and whose high attribute it is to be formed in the image of his Maker.* “The horse [without any interference of man] adapts his structure to the rocky and barren isles of the north, to the level sands of the desert, and to the grass plains of the temperate zones. The sheep produces either wool or flesh, almost at the bidding of its master; and the cow develops an adaptation either for the dairy or the butcher’s stall. When man migrates to the pole the dog develops a rugged and powerful frame which fits him for draught. When he rears a herd, another dog springs up to guard it. When he subsists on game, a different variety is produced to hunt with him, and when he builds a dwelling, yet an-

* A more distinct and remarkable change in the physical condition of life, the result of surrounding circumstances, than that which exists in the Mammoth Cave of Kentucky, cannot be mentioned. It is a well known fact that the small fish and living creatures found in this cave, similar in genus to those found elsewhere, are entirely without eyes or organs of vision.

other variety watches his home. Thus by virtue of God's kind provision the animals supply man's necessities in every clime, and aid him to extend his occupancy of the vacant earth."*

This great law of change and adaptation — so far as any scientific results can be drawn by analogy from the animal and vegetable kingdoms — favors the idea, to say the least of it, that all the races of men now inhabiting the earth, have resulted from a single pair, according to the received interpretation of the Mosaic record; and the few isolated facts referred to as favoring a multiple theory of creation, may, we think, without any insurmountable difficulty, be reconciled with the scriptural authority. But Professor Agassiz insists that this "is not a correct view," and attempts to sustain this position by a statement of the difficulties in the dispersion of men and animals over the earth — as if it were not as easy with God to effect this object as to create distinct races of men in all the continents and islands of the earth. The single fact that different species or varieties of perches and pickerels are found in different rivers taking their sources in the Alpine range of mountains, proves but little in support of his theory, even in regard to fish. The same kinds of fish, of other varieties, are also found in the same rivers, and it is not improbable, after what we have seen respecting animals and plants, that varieties may be produced in one which are not to be found in either of the others.

* *New Englander*, November, 1850.

But even if these alleged facts proved a multiple creation of different or the same pickerel or trout, in each river, it would affect but slightly, without much greater corresponding results, the question of a multiple creation of the wolf in different parts of Europe, and still less would it affect the question of the multiple creation of mankind in the same zoological province — a position which Prof. Agassiz does not even suggest. If the silky wolf of Sweden, the grey wolf of Germany, or the smooth-haired wolf of the south of Europe, are of three distinct creations, as he seems to suppose, the men of the same region are not, but are evidently of the same family. It is probable that these three varieties of the wolf in Europe are the mere effect of climate and other physical influences, as the wolf of Texas is red, that of Florida black, in the intermediate region grey, on the borders mixed, and neither of them native to the region.

Again, if animals and men were created indiscriminately wherever they might be, at any time, how is it that the wild animals are “found only in those places which it was possible for them to reach by migration from the birth-place of the human race? None of the larger quadrupeds occur in islands, or continents even, far removed from those in which we know them to have originated. We have no lion or tiger, no elephant or hippopotamas, no giraffe or camel, no horse or ass, in all America, in all Australia, in all Polynesia. ‘It is a most remarkable fact,’ says Darwin, speaking of New Zealand, ‘that so large an island, extending more than

seven hundred miles in latitude, and in many parts ninety miles broad, with varied stations, fine climate, &c. with the exception of a small rat, did not possess one indigenous animal.' The Falklands, extending one hundred and twenty miles by sixty in width, possessed only a large fox and possibly a mouse. In all Australia, there was no single mammiferous animal larger than a dog. Now if it is the law of nature to diffuse the cosmopolite species by numerous creations of them in distinct provinces indiscriminately, what account can be given of facts like these?" The Pacific Ocean "exceeds by ten millions of miles the area of all the continents and islands on the globe," yet in all the six hundred and seventy-five islands of this vast ocean, Dr. Dana asserts, no single "native land quadruped is to be found."

Nor has the duplicate creation of any one animal, in different parts of the world, — the first thing if the multiple theory be true, which its advocates should be able to demonstrate, — ever been substantiated. It has never been shown that the same species of the same animal has ever been originally created in two or more places. This seemed at one time to have been determined by Sir John Richardson, who discovered what he supposed was the common mole, beyond the Rocky Mountains. As the animal travels only under ground, is almost blind, lies dormant in winter and cannot swim, some difficulty was experienced by naturalists, who were bound to account for the occurrence in some reasonable way or admit, for the first time, the impor-

tant fact of a duplicate creation. Dr. Bachman, whose science and indefatigable labors are an honor to his country, procured by great exertion and expense, some specimens of this mole for careful examination, when the difficulty disappeared: it was a new species, and Sir John Richardson promptly acknowledged and corrected the error when Dr. Bachman pointed it out to him. As we have said, this problem of a duplicate creation, which is the great point of the new theory, ought to be shown somewhere — in plants, animals or men. Arctic plants, which do not live in the soil of New Hampshire, are found upon the top of Mount Washington, identical with those of Labrador, Greenland, Lapland and Siberia, but it is not pretended that these were a new creation in that locality. Ponds of fresh water have within the memory of man been formed by the sea itself in washing up sand bars along the shores of Long Island and shutting out the sea. In these closed bays the salt water fish have disappeared and given place to the common fresh water fish of the ponds; but even here no duplicate creation is asserted, or could be maintained.

But not to argue this question with more of tediousness, Prof. Agassiz's own admission is worthy of particular remark. He says that a normal arrangement of animals and plants, in the tropical zone, "is impossible, unless it be the result of a premeditated plan, carried out voluntarily according to a predetermined law." Passing by the ambiguity of this statement, in carrying out a premeditated and predetermined law

voluntarily, we may ask, Why not a premeditated plan not only in the tropical zone but in all the zones? Why not in the Arctic zone, where the animals of the three continents are alike? Is not the entire work of creation on a premeditated plan? Are not all the laws of nature, — wherever they are to be discerned in their operations, — portions of the premeditated plan of the Creator? Do we not mark and admire the wisdom of God in the formation of men and animals; in their adaptation to the circumstances in which they are placed; in their creation and diffusion over the surface of the earth? Do we not derive from these the evidences of his Providence, of his design and the proofs of his wisdom and power? We had supposed that the multiple theory, whether right or wrong, was based upon the same idea of a premeditated plan. Would there be any less evidence of a premeditated plan in the system of a multiple creation, should that prove to be correct, than in the diffusion of plants, animals and mankind, from a common centre? Here are two adverse theories of the creation, — one supported by the Mosaic record, the other, as claimed, by the results of science, whatever these may be, — and the whole object of either is to discover, if possible, what was the premeditated plan of the universe. Is it not absurd then to say of one of these theories, — that of the Bible, — that it “is impossible unless it be the result of a premeditated plan!” The very thing we are endeavoring to arrive at. Are we seeking for evidences of a theory to prove an accidental creation of man, or an uninten-

tional diffusion of animals over the earth? Not so — whatever is the true theory of the creation, and whenever it shall be discovered or approached, it will not be a true theory unless it develops fully and clearly, the premeditated and primordial plan of the Creator. If, therefore, there be no objection to the veraciousness of the Bible theory, other than that it depends upon and illustrates the precedent wisdom and design of the Creator, to our apprehension it really needs no further investigation or research to establish its truth. The followers of Lieut. Lynch, himself a martyr to science, have need to explore no further into the Dead Sea, nor Layard to dig deeper among the ruins of Nimroud, the modern objectors to the Mosaic record prove its truth.

We have said that the new theory did not announce any particular number of centres, or pairs, from which mankind, animals and plants, have spread over the world, as we now see them. The statement, as made by Prof. Agassiz, is even more objectionable. It is this : “ We maintain,” he says, “ that like all other organized beings, mankind cannot have originated in single individuals, but must have been created in that numeric harmony which is characteristic of each species ; men *must* [?] have been originated *in nations*, as the bees have originated *in swarms*, and as the different social plants have at first covered the extensive tracts over which they naturally spread.”

It may be even so : that men have been created “ in nations,” like bees in swarms, or birch trees in swamps, but the announcement of such a doctrine, in such posi-

tive terms, upon the very imperfect evidence presented, is to say the least of it, somewhat startling. It cannot be that men of science are prepared, with such results only as science has yet afforded to them, for such an avowal, unsupported as it is by any clear evidence of its plausibility, and at variance with the history and theory of the creation heretofore, and now, accepted by the world. At the risk of being pronounced presumptuous, we shall not hesitate to express our belief that this view of the creation of man is "neither a biblical view, nor a correct view, nor one agreeing with the results of science." It seems to us so wide a departure from the authority of the one and the conclusions of the other, as we read them, as to be scarcely deserving a deliberate consideration. The dignity, the honor, the glory of man, as the immediate handiwork of his Maker, is lost in such a theory and his superiority degraded to the level of the insect tribes and the vegetable creations. The beautiful and sublime annunciation of the Bible, "let us make man in our own image, and after our own likeness," loses its significance and grandeur for man. More absurd than the myths of Greece, neither its novelty or its originality can redeem it from grossness or irreligion. So far from being a biblical or scientific view, it is completely destructive of Bible authority and we do not believe can receive any countenance from science. The notion of sixty distinct creations of man, the conception of an excited and enthusiastic speculatist, is not more objectionable than the anti-biblical theory of Prof. Agassiz. We can have no sympathy with such

a theory and cannot but regard it as destructive and of evil tendency. It is idle to talk about a unity of species as a bond of sympathy among men, in view of such a theory. A mere resemblance in physical form in the races of men is of no import, of no influence, without a common origin, a common father, a common destiny: these the new theory may disturb. Such a theory is not elevating but degrading; not promotive of brotherly feelings or kindly emotions, but of clannish sentiments and national prejudices; by it men are related as bees or herring or birch trees, and though alike in physical form, with the unity of origin may go the unity of destiny.

Without pretending to have examined the scientific results alleged in support of the multiple theory, as we believe they can be examined and answered, we have probably said enough to satisfy all of the inconclusiveness of that theory and of the interest that attaches to the subject. Inutile as it may be considered for all the practical purposes of life, we are rejoiced that the investigation of it is yet to be pursued with all the advantages of modern science and recent discovery. No one, we presume, to whom any of the results of science are familiar — who has even superficially acquainted himself with the profound researches of the naturalist and geologist — can desire to retard the progress of true science or fear its legitimate results. The origin of man on this earth — the variety of races and their dispersion — always have been and ever must be questions of deep interest, having a more enduring value

than most of those merely speculative questions which have so much engaged the attention of the world. No question in the whole range of human inquiry, in all of which we see so clearly and gloriously manifested, the power, wisdom and beneficence of the creator, can have more interest to man than that of his creation. True, its complete solution may never be reached, and though some progress towards this be made by every new development in the formation of the earth, and every new discovery in the remote history of man, its attainment seems to be as uncertain as ever. New theories may be advanced, militating with the simplest interpretation of the Bible, or new discoveries made, as they are made, in confirmation of its truth, yet while these afford scope to the intellect and genius of man, they do not open to him the mysteries of his creation or explain to him the wonders of his being. His service still seems to be to explore and admire — to try his powers, if only to learn his weakness — to aspire after that knowledge which is wisdom and power, and learn those deep lessons of love and duty which the God of nature everywhere spreads out before him.



IV.

THE THEORY OF LIFE.



THE THEORY OF LIFE.

THE Principle of Life, of which we have spoken in preceding pages, known to us only by its manifestations, reveals a power so nearly approaching the Infinite, from which it emanates, that we can speak of it only with reverence and wonder. It is manifested to us in so many ways, in so many states of being, with such variety of adaptation, with such wonderful mechanism, in such minute and gigantic creations, with such subordinate and godlike endowments, that the theme is inexhaustible, and however instructive and elevating the study, any discourse upon it must necessarily be more suggestive than complete. — As kindred to this great subject, and as perhaps a more practical topic, we purpose now to speak of the THEORY OF LIFE, as respects Man, in whom is the highest manifestation of the principle.

The Theory of Life is too seldom thought of, and too briefly entertained when it forces itself unbidden upon our attention. How rarely does it engage the thoughts, or interest in any way the great mass of mankind. —

They not only have no theory of life for themselves but no thought of it ; they not only give it no reflection, but rather seek to keep it out of sight, give it no embodiment, either in the mind or heart. If it occurs to them that they were born, so absorbed are they in the business and pleasures of the world, which they call duties, that it never occurs to them it was for any particular purpose either as regards themselves or others. They neither seek anything or do anything, with the end of life in view. They look at the past only to know that they have lived—a circumstance entrusted to their memory and to be perpetuated in the family record ; they regard the present only with respect to position, prosperity and prospects ; they look at the future—all this side of the end—only to arrange for their physical wants, personal pleasures and pecuniary profits. How is it that we are so prone to keep the end of life, the object of our creation—as if there were none—out of view ? How is it that we are so unwilling to look our destiny in the face and prepare to meet it with a manly philosophy ? The business of this world is not merely to live, to “fret a brief hour upon the stage,” and then to die ; merely to make a dash, which so many suppose to be equivalent to what is meant by making a mark in the world.—True it is that these two great occasions in every man’s history,—to be born and to die,—include all others and shadow forth all the joys and sorrows, pleasures and pains, which checker his career ; but they are at most only the beginning and ending of life.

In any rational theory of man's life, he lives for improvement as regards himself, with happiness as the ultimate object; as regards others, for mutual benefit and to aid in the promotion of their happiness; as regards his maker, to render Him service and promote His glory. Self, from the law of our nature and the stronger law of necessity, is a marked power in every man's daily life, and a constant effort is necessary to prevent a selfish habit from achieving the mastery over our better but undeveloped nature. "According to Zeno, the founder of the Stoical doctrine, every animal was by nature recommended to its own care, and was endowed with the principle of self-love, that it might endeavor to preserve, not only its existence, but all the different parts of its nature, in the best and most perfect state of which they were capable."

The Rev. Sidney Smith expressed his idea of the theory of life, when he said "man lives to carry out the system of action most agreeable to the intentions of his maker and most conducive to the happiness of man."

The man who lives for himself only, or chiefly, if any such there are, lives only half his purpose in this world, and can scarcely be deemed fitted at any time for a higher state of existence elsewhere. The evil is, not that men are ever entirely selfish, but that they are too selfish, and not only fail to promote the happiness of others, but fall far short of securing it for themselves. They forget that much of the purest happiness of life, — which warms and thrills the heart, and brings contentment to the mind, — is that which is derived

from the abundant storehouse of promoting the happiness of others. But the mass of men, overlooking the great purposes of life, as regards themselves and others, seem to live to get a living, and life is hardly long enough, they think, to accomplish that object; when they have got a living, as they call it, the "machine" is worn out, "the silver cord is loosed," the "golden bowl is broken." Or they live to accumulate wealth, as if that were the whole aim of life; or for their own enjoyment and the gratification of their appetites and passions, as if these were the objects of their creation. Or, living without an object, they seem to fill a space which might otherwise be vacant; and time, that precious boon which makes up life, is a burden to them, if they are not themselves a burden to others. But neither the accumulation of wealth, for the love of it, or the enjoyment of the passions, is to be reckoned among the true purposes of life.

Man more than any or all other animals, is an improvable being. Created in helplessness he may almost be said to be born again with each new development of his powers. No day or hour from cradle to grave, but in which he may gain new knowledge and have his mind opened to new and higher truths and a larger wisdom. Not so the inferior races: once arrived at maturity, instinct furnishes them with all the intelligence they may know; and age, while it brings experience, teaches them but few lessons beyond the influence of imitation or habit.

To be sure it may be said that man is doomed to la-

bor and by the sweat of his brow gain the bread of his animal life. Were this service not mixed up with pedantic and paltry ambitions ; were there no false standards of worth ; were there no vain pride and meaner oppression, this would not be so very hard a service. — Our artificial necessities, more than the requirements of nature, make up the burdens of life. If man would be contented with the supply of his wants, or if his wants were kept within the ready supply, his portion of labor would be small. But this may not be — perhaps is not desirable — would cramp his faculties and enervate his genius. The great dramatist has very truly said,

“ Allow not nature more than nature needs,
Man’s life is cheap as beast’s.”

The true theory of life requires that all man’s capacity — the power and genius of his intellect as well as the cunning of his hands, — should be exercised, cultivated and developed, and these would not be but for the necessity of labor which is imposed upon him.

But man is not alone doomed to labor among animals or perhaps among higher intelligences. Indolence or inaction is not among the laws of nature or of life. The ox that treadeth out the corn, the patient camel and the trusty horse labor beyond their own necessities for the benefit of man, while the birds of the air and the ranging animals of the forest are all doomed to live by their own exertions. The law of life is with them all the law of labor to sustain and perpetuate life. A man’s talents are given to him for use and use only

can preserve and improve them. No man knows his capacity for improvement — effort begets power and power accomplishes all things. The inactive man not merely fails to use his talents but buries them ; they profit nothing to him or his species, but become weaker or less by want of use. His happiness and his innocence depend for the attainment of the one and the safety of the other, no less upon his labor than does his subsistence. The indolent man, however he may roll in luxury or revel in superfluities, is not therefore a happy man ; far from it ; happiness comes from no such source, owes allegiance to no such authority. Nor is it less so with innocence. Nothing is more incompatible than indolence and innocence ; nothing more genial than idleness and vice. Nature's harmony must be outraged ; her most acknowledged laws abrogated ; her very sanctity qualified, and vice made virtue before this order can be modified or changed. The theory of man's life is not one of inaction or inaptitude. Talents must be used to be expanded and improved ; or if not used they decay and lessen and depart, leaving a worthless casket to be occupied by even more worthless tenants.

Man is born as an animal, and all his early instincts are those of the animal. His physical nature — before the dawning of his moral and intellectual qualities — is first developed. His first instinct for sustenance satisfied, he next achieves command of his limbs, and then begins that intellectual development, — wonderful in its infant impulses as in its highest efforts, — which knows nor reaches any elevation commensurate with his ambi-

tion or worthy of his aspirations. Were he not compelled to labor his physical powers would not be developed ; were his necessities supplied without effort, he would only be at best but half a man, wanting in intellectual and moral faculties as in physical form.

The deaf and dumb, the blind, and the imbecile, seem to perceive the true theory of life, as regards mental and personal improvement ; but these, great as they are, are not all of life. We are to meet its cares, undergo its trials, bear its burdens, as well as enjoy its pleasures, its recreations, its comforts, its being. If the unfortunate are spared some of these, they realize deprivations for which nothing that we know of can compensate. We enjoy the delight of seeing those resplendent works of the Creator, celestial and terrestrial, of which the blind are unhappily deprived ; we realize in its enrapturing power, the sense of hearing, and have added to these the deep and moving, perhaps divine power of thought, the capacity of expression, of which the deaf and dumb can have no adequate conception ; and which we ourselves, it would seem, are hardly able to appreciate.

These things are all embraced in the theory of life : What we are ; what we do ; what we enjoy ; what we suffer ; what we omit to do ; what impressions we receive ; what influences we exert ; what mark we make. The sphere of man is many spheres. He has one orbit in which he moves, but that orbit enters and connects with many spheres, in all of which man moves and shines, himself the centre of his little system. He

may have his perihelion, his aphelion, his apogee, his conjunction, or even his eclipse, — all these in their order, as among the celestial bodies, promote and sustain the harmony of his great whole. So that the law of gravitation be not violated, so that the light of the moral sun be not withheld, he moves on in dignity, in honor, in grandeur, faithful to his responsibilities, and enjoying his reward in a peaceful, well-ordered and useful life.

Viewing man as an animal merely, the same provision is made for him as for other animals. He has roots and herbs and fruits, almost without labor, and flesh, if that must be had for his sustenance, as they have. But man's higher nature demands a different diet; his nobler destiny requires a human habit and he realizes the divine provision that all the creations of this world are designed for his use. He feels within himself that he is of a higher order than the animals around him, and that he is placed by his Maker at the head of these, not merely that he may name them, but that he may rule them by his will and for his purposes. Hence he differs from all other animals in providing himself a covering for his body and in the preparation of his food. All his ends and aims, beyond his mere instincts, are different from theirs. Endowed with the power of thought and reason, he is able not only to foresee his wants, provide for his future necessities and enjoyments, but may minister to his mental life, recreate in sentiment, live in his imagination, and gain on this earth a foretaste of elysium hereafter. To him is

permitted the enjoyment, in the highest sense, the use, and in some degree, the control of the works of nature. He may observe and study the stars by night, watch the cloud and storm, and meditate on the wonders which everywhere meet his eyes. He may contemplate the sea and the swelling wave, and enjoy the mystery and ever-changing beauty of the vegetable world. He alone may cultivate the affections, permit his thoughts to roam through space, and revel in scenes of bliss ineffable, unalloyed by care, undimmed by sorrow, unmeasured by time.

“There is a divinity that stirs within us,” which tells us that man’s moral nature is his highest nature. Our moral impressions are the most elevated, our moral impulses the purest, most delicate, most sensitive, our moral acts least selfish and most beneficent ; but unfortunately our moral nature is not the earliest in development, not always the strongest, not always reliable, not always enduring. Quickly excited it may be, but neglected for a season, quickly blunted. Yet, in the theory of life, the moral nature, — the religious element of the soul, — is to be cultivated as assiduously as the intellectual nature. It is to be enlarged, expanded, strengthened. The physical nature first ; the intellectual after that, and then when the being is prepared for it, the moral : all, it is to be said with emphasis, are essential to the character of an upright and perfect man. The physical nature must be developed as necessary to give animation and strength to the character. The intellectual nature must be cultivated,

for what are moral laws or attributes to insensibility and mere animal instinct? If there be no human organism — no impress of the Divine image — or if there be no intellect, no Promethean fire to light the human soul, what need, or what possibility of a moral nature? But if there be a physical form, Godlike in its attributes, and exalted above all other animals, endowed with an intellectual nature, more Godlike and more exalted still, it were better that these were not, if the moral nature be wanting or uncultivated. Physical power man shares with all other animals and is inferior to many of them in this respect; intellectual power makes him superior to the beasts, and by it he may control them; but in his moral nature alone he transcends all created beings, and combined with his form and intellect, becomes “almost a god.” But culture is the touchstone which after all gives to these combined powers consequence and influence. Use, proper direction and improvement of the physical, intellectual and moral attributes of man, are all but creation to them. It is the cultivation and the soil in which the seed germinates and the plant grows, that makes it, it may be the tangled shrub or the stately oak.

It may be said, after all, that though man be grown up and his sphere of action enlarged to meet the conditions of his life and supply his necessities, his faculties and his nature are not all developed. Never; recorded history offers no example of a perfected man. It is not in the order of this world. The great fiat which

brought man into being, brought his imperfections as a part of his nature with him. If he were more or less than he is, his manhood might be lost in the sublimity of the godlike or debased into the grovelling habits of the mere animal. The perfection of man, — the complete development of all his faculties, — is not to be expected on this earth. Whatever may be reserved for him, among the “just made perfect” hereafter, that state of being may not be hoped for here. The selfish principle — the necessity of providing for himself — would prevent this, even if it were possible by cultivation to perfect his faculties or by the influences of a Christian humility to restrain his passions. His habit of accumulation, the ambitions of his heart, the love of authority, the pride of wealth and fashion, are all obstacles to perfection which no cultivation or experience is able to overcome. In some of these things, it is true, his achievements are worthy of his higher nature, but never in all; as in physics, what is gained in power is lost in time, so what is gained in one quality may be lost in another. A man’s love of fame may yield to his ambition for wealth, or his love for gold yield to his love of popular admiration; his genius may be cramped by poverty, its light extinguished by misfortune, or dissipated in luxury. Circumstances, or what is called an iron destiny, may be favorable or unfavorable to the development of his powers and beyond his strength and he soars above his fellows or sinks below his human level. Indeed we cannot by philosophy or any alchymy make man other than he is — an im-

provable but an imperfect creature ; improvable to the last stage of his being ; imperfect to the end, looking for a higher state of being and perfection hereafter or never achieving it. None of his faculties, none of his senses, none of his powers, not even his strength, are ever here fully developed. The cunning of his fingers today is outdone by his marvellous handiwork of tomorrow ; the highest achievements of his intellect never come up to his ideal, or reach the excellence which he seems to see above him ; the noblest aspirations of his soul seem only to show forth an essence of glory, shadowy and unreal as his dreams.

Man, we know, cannot live for himself alone. The judgment of his Maker,—it is not good for man to live alone, —is the law of his being. It is enstamped upon his frame, manifested in his constitution, imprinted on his heart. Without his gregarious and social habits, he would be liable to fall from his high estate in the order of creation. The attrition of his species is a means of culture to his manners, his mind, his heart, and to it is he indebted for all that grace of motion which so dignifies a man. Without his social habit, the prestige of civilization were wanting to his progress, and he would relapse into a condition of semi-barbarism. Man is indebted, therefore, to his social relations for much of the development of his nature and the improvement of his faculties, and this debt he is bound to acknowledge and liquidate by a proper cultivation of those relations. It is difficult to say in which sphere of man's orbit his influence is most important and most necessary.

Abroad in the world, among his fellow-men, his influence is often of great moment. The influence of a true man in his out-door relations, may even be greater, as they are wider, on the destinies of the race, by a thousand fold, while at the same time the calm, quiet light shed over his own household, cheers all, elevates all, guides all, and infuses its spirit into all. His relations to society, therefore, civil as well as social, no less than his domestic affinities, are to be properly cultivated and wisely exerted for the general good.

We talk of education as the great polar star as well as panacea for all the ills of life. But do we mean the ability to read and write and reckon figures — is that education? Or it may be the ability to build a house, a ship, or to read the stars — is that education? Or even, higher still, hold public office, wheedle the people, and practice statesmanship — is that education? Too generally, it is apprehended, would these things be regarded as making up an education, such as the honor and rights of the people, the safety of the country and the purity of the government may rest upon. It may be so, but heaven must have in store all its blessings for such a people: for until a higher and more complete education shall fit them for the duties and responsibilities of life and self-government, they will need all its care.

Education as embraced in a true theory of life, includes a development, more or less complete, of man's whole nature; and this, in its highest state, will hardly be more than an approximation to what that nature

is capable of. Not only man's destiny, but the extent of his capacity, is equally unknown to him. He bears relations in spirit to other spirits, unknown and unappreciated by his intellect; he cannot tell what he may yet be able to accomplish with his finite powers; he cannot know what may hereafter be accomplished by his infinite attributes.

Education not only enables a man to benefit society by his own influence and example, but is his protection against the evil influences which the community, as it exists, throws in his way. The influences of a community are not all virtuous; the weaknesses of our nature are not proof against temptation in all its guises, or the supreme power of example. Vice itself is hated, yet embraced; virtue beloved but not unfalteringly pursued, even where education is supposed to be a sufficient safeguard. Without education, without good example, and good influences, the danger is greatly increased: the certainty of falling is as palpable as the consequences. If then, the finite fail who shall tell what consequences may come to the infinite? It were the highest wisdom to know that an error of the mortal may stain the immortal. Education is our sheet-anchor against degradation, and the more completely it protects ourselves the more certainly it secures right and justice to others. Only an ignorant man or a bad man violates the golden rule and does wrong to his neighbors.

But man's obligations to his fellow-men do not consist wholly in the example he affords and the influences he exerts. He is to pursue that course of life "most

conducive to their happiness." He has duties to perform towards them ; there are things which he should do, and things which he should not do, and he cannot neglect the one or do the other without offence to his neighbor. Many of these are regulated by laws which every community makes for the protection of its members. There are also more delicate obligations, too personal to be prescribed by law, which we are bound to observe. Among these are good manners, a polite and courteous bearing, a free exercise of that divine impulse which we call humanity, and a considerate charity. Ungentlemanly or unamiable manners are offensive, and not only show a want of education but a want of sense, for an ill-bred man seldom knows his own weakness. He who hesitates when a call is made upon his humanity, or who declines an act of charity, commits a double offence towards his fellow-man and against his Maker. A man may not neglect his dress, or his person, having regard to his occupation, or overlook the common amenities of life and society, required by good feeling and good taste, without offence. His example in these respects would be detrimental to society. The omission of a duty towards himself may chance to be an offence towards his neighbor. Even in his personal bearing, — being crabbed or disobliging, spreading ill-humor or bad feeling, repelling kindly impulses, or making disparaging remarks, — for all these a man is personally liable to the charge of offensiveness, and has the same right to do greater outrages

as he has to do these. An overbearing manner and the affectation of superior wisdom, as if to say—

“ I am Sir Oracle !

“ When I ope my mouth, let no dog bark,”—

are equally violations of propriety and indicative of a want of sense or a bad heart. To say that they are in bad taste is stating it mildly. Socrates seems to recognize something more than heathenism teaches when he says — “ It is frequently possible for men to screen themselves from the penalty of human laws, but no man can be unjust or ungrateful without suffering for his crime — hence I conclude that these laws [the principles of virtuous conduct,] must have proceeded from a more exalted legislator than man.”

In a true and elevated theory of life man regards himself as one of a brotherhood, all of whose duties are plainly indicated by his own good sense, a clear head, a kindly heart, and a magnanimous sacrifice of an undue selfishness. He perceives the briefness of life, the temporal character of his possessions, and knows how much truer joy there is in substantial goodness than in transitory pleasures. He knows how deeply a good act swells the heart and vibrates along its most delicate cords, and perceives in his own humanity an evidence of the godlike. It is to him a foretaste of the joys of the future ; a realization in small degree of the beatitudes of an endless hereafter.

In speaking of life in community as we have done, — of man’s duties to himself and his fellow-men, — we

have made no distinction of position, rank or pursuit. These adventitious circumstances are to be taken into consideration only in particular cases ; yet it is not to be denied that they exercise a great influence not only upon individuals but upon the family of men. They are the springs of ambition and lead to wealth or fame, and influence more or less every mind. Circumstances it may be said, make the man, if by his genius, his talents, his energies, he does not make or control them for himself. Some men are born into rank, position or wealth, but these are more generally achieved by truly great men for themselves. Wealth may be inherited, but so rarely are great qualities transmitted that seldom does the son of a great man become great himself — so that in this country it is a little unpopular for any man to boast of his ancestry. The great men most prominent in our history, from Washington to Webster, were born of undistinguished parents in humble conditions of life, and were eminently the architects, under God, of their own fame. Greatness is not for all, wealth is not for all, fame is not for all ; but position of some sort, worthy and honorable, is open to honest, intelligent and commendable ambition. The powers and faculties, bestowed with more or less of largeness, with more or less of strength, upon every man, if rightly directed and wisely cultivated, will secure to him respect, consideration and the desirable objects of life.— The most certain and least perishable wealth — that of goodness — is attainable by all : Virtue will glorify a cottage, and Vice desecrate a palace. The gift of hu-

mility, the kindliness of a brotherly affection, the impulses of a generous heart, the nobleness of a patriot, the firmness of a martyr, are all elements of character not less enduring, not less worthy, than the fame of a conqueror, the accumulations of a Cræsus, or the popularity of a statesman. The best gifts of God to man, moral as well as physical, are the most abundant, and none by the accidental circumstance of birth, whatever that may be, may claim or enjoy them exclusively.— We acknowledge no “divine right” of king, potentate or pope; we acknowledge no government but that of our own choosing; no bishop but him of our own selection. The pure air of heaven, the genial warmth of the sun, and the light within us, are gifts to all, which none may take away, none may sell, none corrupt. — The soul of man, however wrong and oppression may afflict his body, is amenable only to his Maker, and shall rise, as in the most memorable record of history, triumphant over the cross, and the crown of thorns be changed to a halo of living light. The rewards of virtue and the consciousness of goodness are not purchasable with gold, but are the wholesome and glorious fruits, which blossom and ripen upon the tree of a true man whose powers have been developed, whose intellect has been cultivated, whose heart has been improved.

The Theory of Life, then, if these views are sound, while it does not teach us to look for unalloyed happiness, or unending pleasure, where all things are temporal, may well lead us to self-improvement and the cultivation of our faculties in order that we may be fitted

for a higher state of being hereafter. This alone can raise us above the lesser orders of creation and enable us to contemplate the wondrous works we cannot comprehend. Born as we are, without any act of our own, placed on a world whirling through space, amidst orbs of infinite magnitude and inconceivable distances, with the lights of revelation and conscience to guide us, we may well consider, though we may not justly comprehend, the end of our creation, and live as though we dared to meet it. Though our life may be, as Shakespeare says it is,

“ A tale

“ Told by an idiot, full of sound and fury,

“ Signifying nothing ;”

Or

“ A web of mingled yarn, good and ill together ;”

it is ours to render it harmonious with the design of creation and weave it into a chaplet of excellence and beauty worthy of its great author.

The wonder of the world is that man, whose utmost knowledge is limited, has been able to accomplish so much. He has discovered and developed many of the laws of nature, created art, established science, and with a daring spirit and almost reckless hand, has ventured far into the penetralia of the infinite. He has deduced from the visible a practical wisdom and a sense of the invisible which gives him transcendent power over matter and its laws. From the utter ignorance of

all things, prompted by his unerring instincts and aided by the yet unfathomed resources of his intellect, he has achieved a position worthy of his nature. Armed with the knowledge of the world today, now as we believe placed beyond the possibility of annihilation, he stands forth in pride and power and proclaims himself a man. No thought is too abstruse for his investigation, no manifestation of nature too intricate or profound for his research. The hidden mysteries of creation, the deeper mysteries of the soul he not only dares to contemplate but in some measure affects to comprehend and reveal.

From all that has been said we may see that life, as we enjoy it in common with "the rest of mankind," is one of varied duties and interests—duties to ourselves, to each other and to God, the measure of all which is to be determined by each individual for himself, as the architect of his own fortunes and the disposer of his future welfare. Herein and so far, qualified and limited by a just performance of all his duties, is the free agency of man. Thus the true theory of life for every man is to be found, guided by his enlightenment, his intelligence, his Christian faith, in his own conscience. This must be his monitor, his guide, his judge, and as he respects it, obeys it, follows it, shall he be justified hereafter.

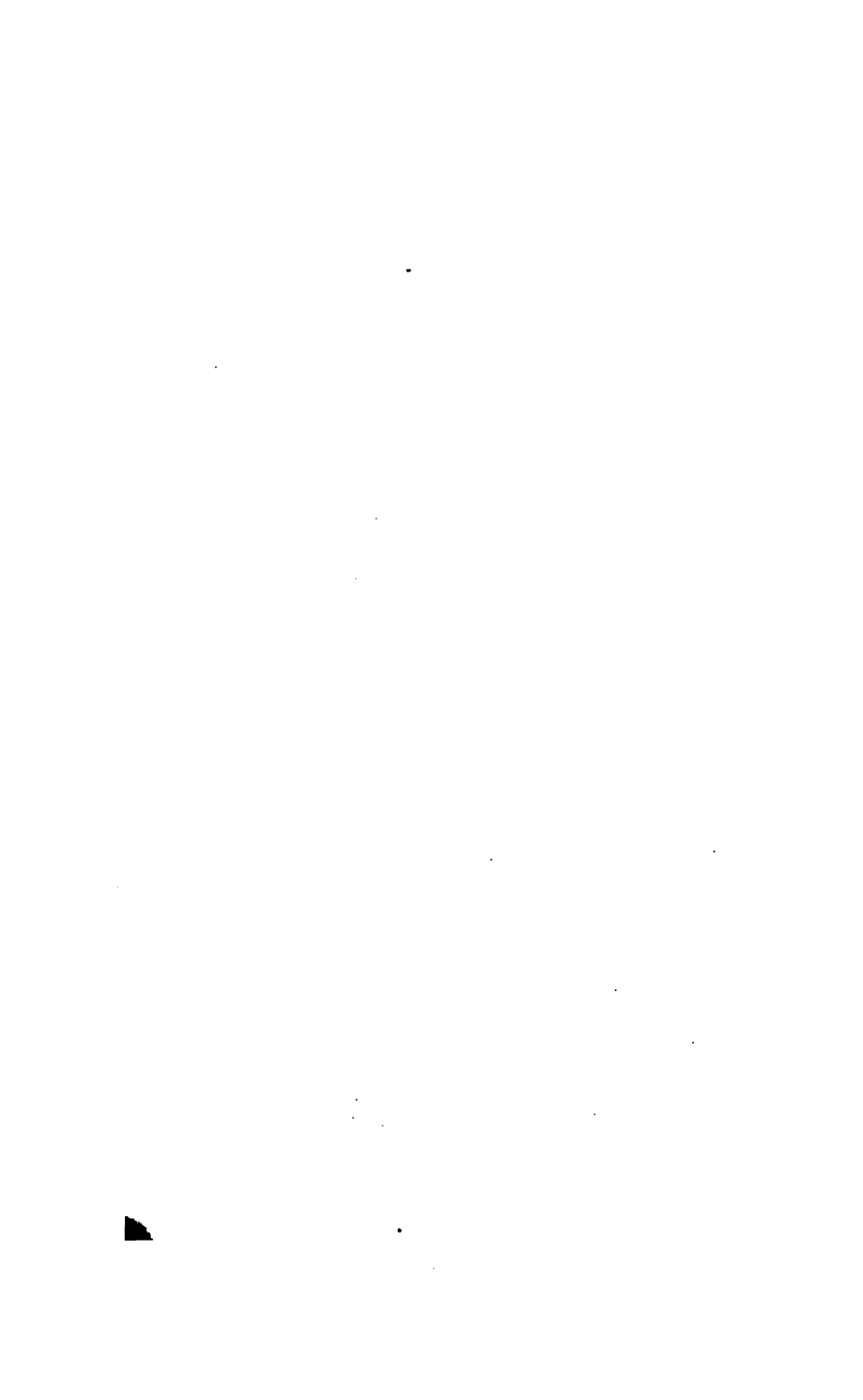
"This above all: To thine own self be true,

"And it must follow, as the night the day,

"Thou canst not then be false to any man."

V.

THE OPEN POLAR SEA.



THE OPEN POLAR SEA.

[The following paper on the supposed Open Sea, in the Arctic Regions, sometimes called the Circumpolar Sea, was read at the session of 'the American Association for the Advancement of Science,' held at Newport, R. I., in 1860, and is contained in the 'Proceedings' of that year ; but unfortunately, by inadvertence on the part of the editor, it was omitted in the Index to the volume. It will be found in the Proceedings of the Association, Vol. 14, page 166.]

THAT which has frequently been suggested in the geography of the Arctic Regions as probable, seems of late years to be freely admitted as a theory, namely, an Open Polar Sea. In fact such is now the evidence in support of an ameliorated climate around the North Pole that the existence of an open sea, in or near the centre of the polar basin, is regarded by many as an established fact in physical geography. Some, however, still doubt the existence of an open sea. A writer in the *Edinburgh Review*, 1857, says, "We are bound to say, however, that this *notion* of an open sea still awaits further confirmation." Dr. Rink, of the Royal Geographical Society, doubts the existence of an open sea, "assumed to be kept open by a branch

of the Gulf Stream, from Nova Zembla down Smith's Sound to Baffin's Bay," &c.

The theory of Lieut. Maury, to some extent adopted by others, on this subject, appears to be, that the waters of the Gulf Stream are in some way, through Baffin's Bay and the Spitzbergen Sea, carried into the Arctic Ocean and by their influence maintain an open sea at or near the pole. He says "there is an under-current setting from the Atlantic through Davis's Straits into the Arctic Ocean," and that "Wrangell's Polynia, to the north of Siberia, if it exist, probably owes its freedom from ice to the warm waters of the Gulf Stream, which run between Spitzbergen and the North Cape into the Arctic Ocean."* Prof. Bache seems to give some countenance to the theory here suggested in a recent letter (May 1860,) to Dr. I. I. Hayes, in which he express to him the hope that he may reach that open sea "where our great Gulf Stream rests from its labors after carrying the warmth of the equator to temper the cold of the pole."†

Dr. Hayes has repeatedly expressed himself in favor of the same theory; but his distinguished predecessor, Dr. Kane, believing in the evidence which points to the existence of a milder climate and an open sea near the pole, is not disposed "to express an opinion as to the influence which ocean currents may exert on the temperature of those far northern regions."

Without attempting here to controvert this theory,

* Maury. "Currents of the Ocean," and Letter of Instruction to Lieutenant DeHaven.

†See Note A.

—always so unsatisfactory, — we may observe that it does not appear to be adequate for the purpose proposed, even if there were no other objections to it. It seems to us that, while the influence of the Gulf Stream, has been unduly enlarged and overrated, especially as regards the Arctic Regions, the influence of the *Currents of the Air*, beyond certain parallels of latitude and beyond certain admitted purposes, has been mainly overlooked; and we are unable, from such investigations as we have been permitted to make, to resist the conclusion that an open sea, or an ameliorated climate, at or near the position of the theoretic pole of the earth, is largely if not entirely due to the *Currents of the Air from the Equatorial Regions, which move in the higher strata of the earth's atmosphere, bearing heat and moisture with them.* How far the flow of these currents of air from the exact position of the equator, or either north or south of it, may be affected by the physical constitution of the earth and the disproportion of land between the northern and southern hemispheres, may hereafter be an interesting subject of scientific investigation.

The circulation of the air from the equatorial regions towards the poles of the earth, and thence to the equator again, performing purposes pertaining to climate, temperature and meteorology, is not a new suggestion, though it would seem that its real movements and influence in the far northern regions, where these are the greatest and most potent, have never been fully understood and admitted. Dr. Buist, seems more adequately

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than other writers, to admit this influence. Dr Hayes recently said in one of his public lectures on the subject, "If it can be shown as assumed that a milder climate exists about the pole, it must be owing to the influence of open water;" but Dr. Kane, in speaking of the phenomena of the Arctic Regions, more justly remarks, "To refer them all to the modification of temperature induced by the proximity of open water is only to change the form of the question; for it leaves the inquiry unsatisfied, What is the cause of the open water?" It is remarkable that the friend and follower of Dr. Kane did not see this difficulty and the inconclusive nature of his remark.

In offering some of the more prominent suggestions in support of the theory of the *Currents of Air*, perhaps the first to be spoken of is the prevalence of the warm element in winds blowing from the north and north-east (true.) These winds, with some variations and still more uncertainty of compass-direction, are mentioned so generally by Arctic explorers, and confirmed by whalers and others, that the fact of the extraordinary presence of warm air in those frozen regions in mid-winter, may be considered as fully established. The result obtained from the recorded observations of Dr. Kane, discussed by Mr. Schott, is, "that the south-east (magnetic), north-north-east (true) winds had the effect of elevating the temperature of the air even in the winter months, which [says Mr. Schott], may be supposed to have arisen from its originating or blowing over a water area, partially open, (this would have a

surface temperature of 29° Fah.). The direction points across Washington Land and Kennedy Channel, as the seat of this influencing area."* Sir Edward Parry also found at Melville Island, Winter Harbor, that the northerly winds were often warm. But the experience of Capt. McClintock, in his successful voyage of search for the remains of Sir John Franklin's expedition, is still more remarkable, and his own suggestion, the first to be found recorded in any similar work, was welcomed by us as a most satisfactory illustration of a theory entertained for many years before Capt. McClintock sailed on his voyage. The following is Capt. McClintock's statement:—

"November, 1857, Melville Bay. 23d. A heavy gale commenced at north-east on the 21st, and continued for thirty-six hours unabated in force, but changed in direction to south-south-west. It appears to have been a revolving storm, moving to the north-west. Yesterday, as the wind approached south-east [north-north-east, true,] the temperature rose to $+32^{\circ}$; the upper deck sloppy; the lower deck temperature during Divine service was 75° !! As the wind veered round to south-south-west the wind moderated, and the temperature fell: this evening it is -7° . How is it that the south-east [north-north-east] wind has brought us such a very high temperature? Even if it traversed an unfrozen sea it could not have derived from thence a higher temperature than 29° . Has it swept across Green-

* Assistant Charles A. Schott, letter to Professor A. D. Bache, dated December 4, 1859. See Note B. v

land — that vast superfiice partly enveloped in glacier, partly in snow? *No, it must have been borne in the higher regions of the atmosphere from the far south, in order to mitigate the severity of this northern climate.* [The italics are ours.]

“Peterson tells me,” he continues, “the same warm south-east wind suddenly sweeps over Upernavik, in mid-winter, bringing with it abundance of rain; and that it always shifts to the south-west,* and then the temperature rapidly falls; this is precisely the change we have experienced in latitude 75°. I believe a somewhat similar but less remarkable change of temperature was noticed in Smith’s Sound, lat. 78° 45’ N.”—pp. 63, 64.

The constant occurrence of fogs throughout the Arctic regions, and especially towards the north, at all seasons of the year, is remarked by all explorers. Dr. Hayes says:—

“The record most commonly is, a most curious phenomenon was witnessed upon the north horizon; a heavy mist-bank floated there almost continually, and ‘mist-bank in the north horizon,’ became a stereotyped entry upon our meteorological tables.”

If we suppose these fogs to be regarded, as they generally are, as arising from open water, they only go to indicate the existence of such open water, which they do not in any degree account for. Some of the lesser

* The points of compass here given are probably magnetic, but these are so variously stated by explorers, in regions of such great variation, that they are often unreliable and not always to be depended upon.

fogs are no doubt local, produced over small openings in the water wherever such occur from any local cause, and these are sometimes denominated "ice-smoke." — Falls of snow and rain are of frequent occurrence, and in some cases of record are reported almost daily. Mr. Schott, in his paper on Dr. Kane's observations, says : "In seventeen months [in one locality, Van Rensselaar Harbor], it snowed six hundred and eighty hours and rained during sixty hours. Snow fell in all the months of the year, but rain only in July."

Storms of great violence rise suddenly, and in many cases as suddenly cease. It is remarked by some navigators, who have spent months in the Arctic regions, that they do not remember to have seen the seas and the horizon both free from cloud even in the clearest weather. In the year from September, 1853, to September, 1854, in latitude $78^{\circ} 40'$ about, Dr Kane records only seventy-three clear days, averaging six to each month, the most of these in the winter months, and the largest number (thirteen) in November. In the succeeding eight months, from September, 1854, to April, 1855, both months inclusive, fifty-four clear days were noticed, seventeen of these in December. Capt. Beechey, June 26, 1818, says : "We had a fall of snow, and at noon, for the first time since crossing the Arctic circle, a shower of rain, which, although the summer was so far advanced, cased every rope in ice as it fell." The rain, as is often the case in lower latitudes, came from a warmer region and was warmer than the atmosphere into which it fell. After the rain "the

gale abated, and the next day it fell calm." It would seem that these constant fogs and the frequent falls of snow and rain, and especially the changes from snow to rain (reported more particularly by Capt. Parry and others), can scarcely be accounted for on any satisfactory basis without admitting the presence of warm air and moisture from the equatorial regions.

There are in the northern regions of America, Europe and Asia, a number of large rivers, which flow northwardly into the Arctic Ocean. These rivers must necessarily be kept open for a considerable portion of the year, and the ice and snow which accumulate about their sources and along their banks, forming an immense water-shed for their supply, must be melted, by some influence and their waters returned to the ocean — and this in and through regions of almost perpetual congelation. It seems to be almost impossible that the sun, during his continuance above the horizon and from the indirection of his beams, can exert sufficient power to effect this necessary purpose, either among the mountains or in lands whose general slope must be towards the Arctic Ocean. The warm air of the equatorial currents, and the warm rains which they bring, must do here that which the sun by his brief presence cannot possibly accomplish.

The Equatorial regions are considered to include, north and south of the equator, some forty-seven degrees of latitude ; and the air which rises into the atmosphere from this vast region is reported to be of different degrees of temperature, varying from 100° to

70° of Fah., and evaporating from the oceanic surface from thirty-seven to one hundred inches of water annually, as approximate averages. Of course the currents of air will rise to different heights, depending upon its rarefaction and moisture, and be subject to the influence of the different states of the atmosphere which they may reach. The less rarefied, parting with its heat and moisture more quickly, will descend in lower latitudes; while that of higher temperature, reaching to higher regions, must descend in higher latitudes, at or near the poles of the earth, north and south. It will be remembered that this air from the equatorial regions, rises more or less equally, from the vast space indicated by the lines of latitude of the tropical zone, and from the entire circumference of the earth at its greatest diameter, converging as it approaches the poles correspondingly it may be with the lines of longitude, and subject of course to be influenced by the diurnal motion of the earth. The currents from opposing directions, high in the atmosphere and descending at the poles to supply the place of the air moving towards the equator, to maintain the circulation, must necessarily meet and in some way counterbalance each other, producing those calms (and probably fogs.) in the northern regions which are said to occur more frequently than the winds from all directions added together. — Passing from the central regions of the earth, where its diurnal velocity is the greatest, the currents of air are subjected to a slower movement as they approach the poles; and from their convergence and interming-

ling, with their various proportions of heat and moisture, as from the burning regions of Africa on one side, and the moist surface of the Pacific Ocean on the other, would be sure to produce much of the elemental strife and other remarkable phenomena of the Arctic regions, not otherwise to be explained.

The poles of greatest cold in the north are located on the American and Asiatic continents at about latitude 78° * (though probably varying from this degree more or less every season) and are found to correspond, approximately at least, with the magnetic poles. The position of these poles of cold, so many degrees south of the pole of the earth, not heretofore accounted for, does not seem to conflict with the theory of the currents of warm air from the equatorial regions, but rather to strengthen it. While an open sea, or an ameliorated climate, would be maintained at or near the pole by the influence of the descending air and fall of moisture, of a comparatively high temperature, the region farther south, over or above which the equatorial currents, when not otherwise influenced by opposing currents, would generally pass, would necessarily be the region of extremest cold—because too distant to be reached by any direct or surface-influence from the warm latitudes of the south, and likewise distant from the immediate action of the descending currents of the warmer air at the north. The warming influence of the sun cannot have the power it exerts in lower latitudes, and the warm air from the equatorial regions passes over and beyond it. This important point, as well as

* See Note C.

some others in this discussion, may be enlarged upon hereafter when the positions of the poles of cold are more fully determined and understood and the isothermal lines of the Arctic Regions better established, although neither of these will probably be more than approximately determined at any period. It will be an important fact to know hereafter, whether if the poles of cold are changeable, the magnetic poles are also changeable.

The Arctic Ocean, it is known, north of a certain limit, — varying doubtless in different years, and more or less at different seasons, — is surrounded by an ice-belt, and as far as explored, encumbered with ice in masses of greater or less magnitude. It has heretofore been supposed that a large portion of it, near and around the pole, is covered with solid masses or extensive fields of ice, and Capt. Parry, notwithstanding all his experience in the Arctic Regions, in 1827, actually expected to be able to travel over these fields even with reindeer to draw his sledges, to the region of the pole ! He expressed his disappointment in this respect, (for he did not even start with his reindeer,) when, after travelling twenty days over the hummocks and through the floes with incredible labor, to latitude $82^{\circ} 17' 10''$, he “began to doubt whether he should at all meet with the solid fields of unbroken ice which,” as he says, “every account had led him to expect at a much lower latitude.” Capt. Parry made in this remarkable expedition the highest northing which has ever been made, and it appears from his account, as from others,

that the Arctic Ocean, as far as explored, is covered with hummocks and masses of broken ice, excepting perhaps some uncertain and promiscuous statements of open water seen in different directions, and the reported absolute view of an open sea by Morton, on Kane's expedition—which is also very uncertain.*

Among all the attempts which have been made in a period of more than three hundred years, to explore the Arctic regions, the attempt of Capt. Edward Parry, in the summer of 1827, is one of the most remarkable. The expedition consisted of one vessel and two sledge-boats, prepared for the purpose and provided in the most complete and thorough manner, with everything which science, ingenuity and experience, with unlimited government funds, could furnish. The vessel, (the *Hecla*), was left in harbor on the north-west coast of Spitzbergen, and the two boats started, with fourteen persons to each, on the 20th of June, Capt. Parry in command of one and Lieut. J. C. Ross in command of the other. The weight of provisions, clothing, &c., taken amounted to 268 pounds to each man, and the expectation was to be absent seventy-one days. They left the shore of Little Table Island, at half past ten, P. M., on 23d of June, and at midnight were in latitude $80^{\circ} 51' 13''$. Almost the first thing they observed was a brilliantly-colored rainbow without any appearance of rain, and a current was setting them to the eastward. Soon afterwards the weather came thick, with "continued snow." The party travelled mostly in the night and rested by day, when the sun was at its

*See Note D.

greatest altitude; but some of the men declared "that they never knew day from night during the whole excursion." The weather and temperature which they met, had these prevailed for any length of time in a lower latitude, would undoubtedly have made an impression upon the great ice barrier. At a point farther north than has yet been reached by any other explorer, in latitude $82^{\circ} 3' 18''$, Capt. Parry says, "we are again annoyed by a heavy fall of rain, a phenomenon almost as new to us in these regions until this summer, as it was harrassing and unhealthy." Capt. Parry's mistake in this remark undoubtedly is found in the fact that he was new to these regions rather than the rain. He was then where no navigator or explorer had ever been before. On a previous day, 3d of July, the snow had changed to a heavy rain, and "had produced even greater effect than the sun in softening the ice." The pertinent inquiry here is, how the snow storm, supposing that to be legitimately there, came to be changed to rain, and the rain warmer than the atmosphere and softening the ice? How were the clouds formed? Whence did the moisture come? Can it be considered even in summer a region where showers and local storms are produced? On the south at this time were vast fields of ice, and the same in all directions to an unknown distance. Whence then this warmer air, holding such vast quantities of moisture, which was condensed and fell in the form of snow at first, and resulted in a warm heavy rain, which softened the ice more than did the sun, and this nearer the pole than

had ever been attained before, and many degrees beyond the supposed pole of cold? Perhaps these remarkable phenomena are to be accounted for in some other way than that here proposed, but it has not been offered and is not yet perceived.

On the 12th of July, the thermometer was at 35° to 36° in the shade, with a clear sky overhead, and ponds of fresh water were not only abundant *on the ice*, but there were indications "that the water was less deep in them by several inches than it had been somewhat earlier in the summer"—and this was in latitude $82^{\circ} 17' 10''$. There must have been early rains.

The whole narrative of Capt. Parry, in this attempt to reach the pole, seems to be indicative, as we have already intimated, of an approach to a milder climate, which produced open water and was not caused by it. On the 13th no bottom could be found with four hundred fathoms of line; and the ice was more broken up and more difficult to pass over than ever; much of it was so thin as to be dangerous, with holes quite through it in many parts. Capt. Parry says, "mounting one of the highest hummocks at 9, P. M., we could discover nothing to the northward but the same broken and irregular surface," and no solid fields of ice as expected. The ice was so rotten and unsafe that "only one individual was allowed to jump over at a time, or to stand near either margin, for fear of the weight being too great for it."

In reference to the frequent falls of rain, Capt. Parry observes, "it is a remarkable fact that we had al-

ready (first week of his journey,) experienced more rain in the course of this summer than during the whole of seven previous summers taken together, though passed in latitudes from seven to fifteen degrees lower than this." The observation is very significant. He evidently did not look for rain so far to the north, and yet found more than he had ever before met with from five hundred to a thousand miles farther south. Thus he had been disappointed in not finding the solid ice which he expected and equally so in finding such falls of rain which he did not expect. As he continued to the north the rain continued also, and in fact increased, and had as he states a week later, already quoted, more effect upon the ice than the sun. At the last named time, 4th of July, as on other occasions, the snow changed to rain, and there was so much water on the ice that the party were compelled to resort to the use of their Esquimaux boots. Here in the region where solid ice-fields were expected, only broken ice and fresh water were found, and the ice was unsafe. On the 6th, fog continued all day, and on the 7th there was not a piece of large or level ice to be seen in a northern direction. On the 8th, a great deal of rain fell and the ice became lighter and thinner than before. On the 13th, as already stated, there was no improvement; rain continued, and on the 16th, the ice on which the party dined was not more than four feet thick and half a mile square. They saw this day a malle-muck, a Ross gull, and *two small flies*. The mention of these last, Capt. Parry regards as a matter of "ridiculous importance;"

but the fact may not be so disposed of. The sea fowl may have come over the ice a great distance, but from whence did the flies come? They were found upon the ice and are quite as likely to have come from the north, where there may be land, as from any other quarter. The temperature here, July 17, in lat. $82^{\circ} 32' 10''$, was at 35° in the shade.

On the 20th of July the party came to a good deal of ice, "composed of flat bay floes not more than three feet thick," which had "recently been broken into small pieces." These Capt Parry thought were formed in the interstices of the ice during the preceding winter, and are again dissolved, as he supposed, before the autumn frosts return. These it would seem, came from the north, for here Capt. Parry found the drift which finally stopped his progress in that direction — a drift estimated by him from rather indefinite data at four miles a day. On the 17th, at noon, he was in latitude $82^{\circ} 32' 10''$. Without stating the progress made on the 17th, 18th and 19th, separately, Capt. Parry says, "we halted at 7, A. M., having by our reckoning accomplished six miles and a half in a N. N. W. direction, the distance traversed being ten and a half miles. It may, therefore, be imagined how great was our mortification in finding that our latitude by observation at noon, was only $82^{\circ} 36' 52''$, being less than five miles to the northward of our place at noon on the 17th, since which we had certainly travelled twelve in that direction." On the night of the 21st, they had the best travelling during the excursion, and calculated

that they had made between ten and eleven miles in a N. N. E. direction in traversing about seventeen, but at noon found the latitude $82^{\circ} 43' 5''$. On the 22d, they had a laborious night's work and halted at 7, A. M. on the 23d, and the men began to think they "were a long time in getting to this 83° !" On the 23d, they supposed they had made four and a half miles to the N. N. E. and they stopped at 2, A. M. on the morning of the 25th, in consequence of the small ice, in latitude $82^{\circ} 45'$. Snow began to fall and the weather became inclement and wet; but on the 26th, they obtained the latitude $82^{\circ} 40' 23''$ — three miles to the south of the observation on the 22d, though they had travelled between ten and eleven miles due north in the interval — a drift of thirteen and a half miles, "a southerly drift exceeding four miles per day." He had probably had to contend against this current during a large part of his journey, as he had travelled 292 miles in thirty-five days, and was only 172 miles from his ship lying in a S. 8° W. direction. In returning, the drift helped the party to five and a half miles per day in their progress.

Thus ended this remarkable "excursion" — a failure as far as regards its object, but almost proving the existence of an ameliorated climate at the north, if not demonstrating the possibility of reaching the pole. As regards its results, they afford no grounds to sustain the Gulf Stream theory of the open sea, if they do not wholly unsettle and make it impossible.

The frequent recurrence of calms, mock suns, mirage, aurora and other peculiar phenomena in the Arctic regions is well known, because they are matters of record with every navigator and explorer of those regions. These are not confined to any season of the year, though perhaps more frequent, or more frequently reported in summer than in winter, — but are occurring at all seasons. The cause of these phenomena, — the coming together of currents of air from opposite directions, producing calms ; the intermingling of currents of different degrees of temperature and density, producing mirage and parhelia, and the return of electric fluid toward the equatorial regions, producing aurora, — can only be found, it would seem, in the presence of warm air from the equatorial regions, descending in these high latitudes to supply the air constantly moving towards the south. Speaking of this well-established circulation of the air, Lieut. Maury assumes to demonstrate it in this wise: “As these two currents of air are constantly flowing from the poles towards the equator, we are safe in assuming that the air which they keep in motion must return by some channel to the place near the poles, whence it came in order to supply the trades. If this were not so, these winds would soon exhaust the polar regions of atmosphere and pile it up about the equator [!] and then cease to blow for the want of air to make more wind of.” [!]

There is not probably in all physical science a more sublime arrangement, illustrative of the infinite wisdom of the Creator, for the most beneficent of purposes and

the accomplishment of such important ends, than that which we have been endeavoring to illustrate, namely, the circulation of the air from the equatorial regions to the north and south extremes, where the sun's rays do not exert that genial and life-giving influence with which it directly endows other portions of the earth. — We have now partially and in a somewhat cursory and unscientific way, presented some views pertaining to this subject and bearing upon the question of an open sea, or an ameliorated climate at the north, — which, however small their claim to originality, or right to be accepted as a theory, may yet be entitled to some consideration and further inquiry. There are many facts and groups of facts, in physical science and meteorology, recorded in the numerous works of Arctic explorers and scientific writers, more or less connected with this subject, to which we have not even alluded. These may hereafter be considered and their proper weight allowed in support of the views here presented. Of one thing, however, we may feel quite certain : the purposes of the great heat of the equatorial regions, once produced and carried into the air, not there to be annihilated, cannot be wholly misunderstood, and those purposes, it seems to us, are unaccomplished if not felt at the poles of the earth towards which the warm air flows and where its influence is most required. Unless this be so the sceptic may declare the wisdom and power of God unequal to his beneficent purposes, and the polar regions may be what some have supposed, not only regions of darkness, but of perpetual stagnation and death.

NOTES.

Note A., page 118.

In his lecture at Newport, August 1860, on the Gulf Stream, Dr. Bahe says, "The after progress of this mighty stream, if it does divide, remains yet to be traced, and so also its heading in the Gulf of Mexico." *Proceedings of the American Association for the Advancement of Science*, vol. 14, p. lxxii.

The letter from which the quotation in the text is made was addressed to the Philadelphia Board of Trade.

Note B., page 121.

THE INFLUENCE OF OPEN WATER. Open water, whatever influence keeps it from freezing, of the temperature of 23 deg. will give out little if any appreciable warmth to the atmosphere, and certainly will not change a fall of snow to rain nor make the upper deck of a ship "sloppy." If the whole Arctic Ocean were open water at the temperature of 23 deg. it would hardly furnish what is invariably spoken of by navigators as a warm wind. No navigator has spoken of a warm wind when in open water, and those that have spoken of it have been surrounded with ice for unknown distances.

Note C., page 126.

POLES OF COLD. The poles of cold, (certainly changeable,) have been placed at latitude 78 deg. and longitude 95 deg. W., and latitude 78, longitude 120, E. Dr. Kane mentions the American pole at latitude 72, longitude 100 deg. and the other in Siberia. Another account places each of them in latitude 80 deg.

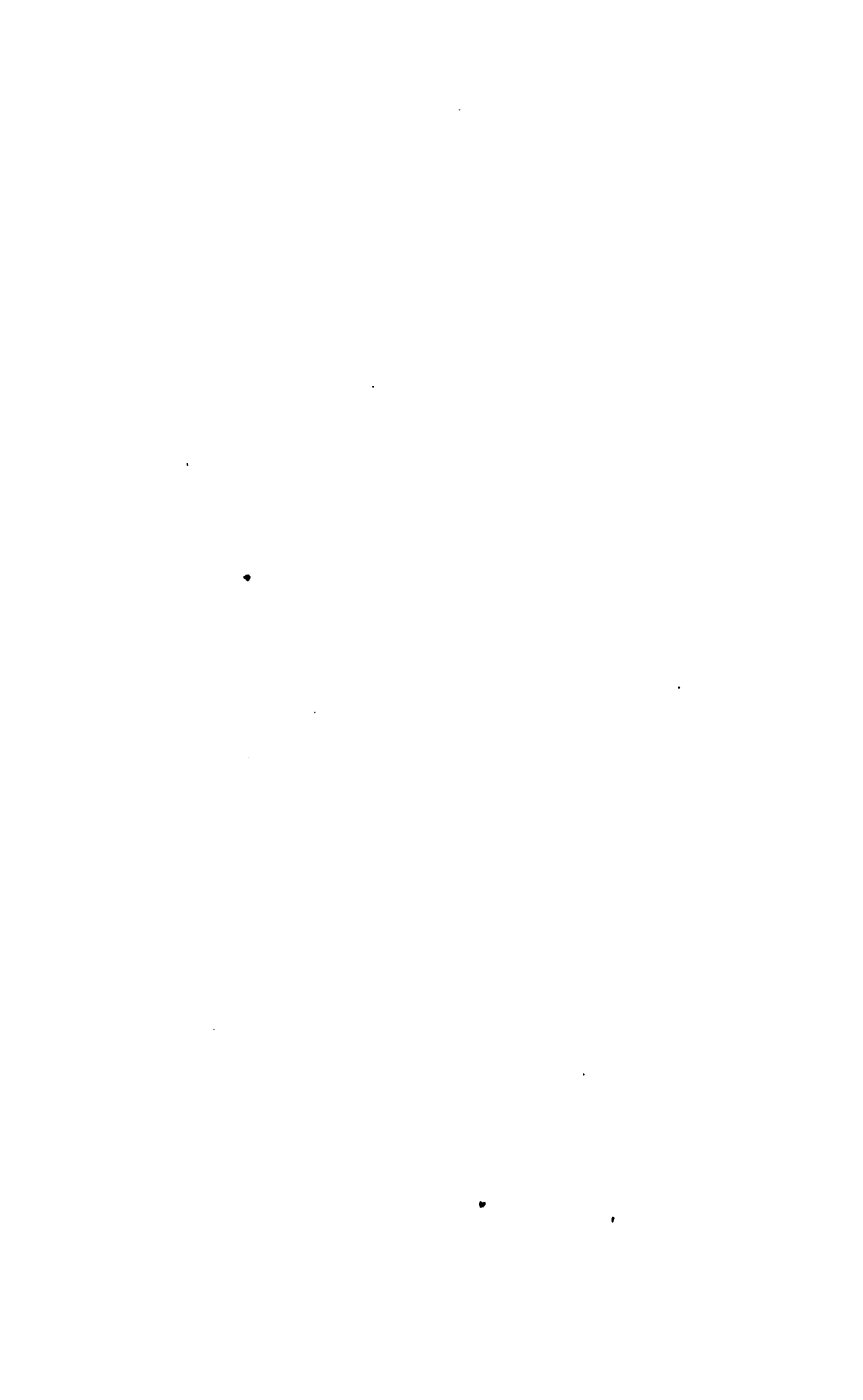
Note D., page 128.

MORTON'S STATEMENTS. It is pretty well known that Morton's *reckoning* of distance travelled is overstated; that the elevation attained is uncertain, being variously stated by Dr. Kane at 300, 480, 500, over 500 and 580 feet, and that the extent of his observation was not over 15 miles instead of 40. He certainly did not see what Lieut. Maury chose to call "a boundless, iceless sea, throwing its frozen-capped waves towards heaven!"

Dr. Kane, alluding to Baron Wrangell's remark of seeing a "vast, illimitable ocean," says "he forgot for the moment how narrow are the limits of human vision on a sphere."

VI.

THE CITY AND THE COUNTRY.



THE CITY AND THE COUNTRY.

EVERYBODY understands better than the dictionaries define it, the difference between the city and the country. Simply to say that the country is a "rural district" requires other definitions and results in a balancing of synonyms. It is much more than is comprehended in that phrase. It is all very well and very right to praise and commend the city, — mystic and selfish and social as it is, — where all extremes, intellectual, fashionable and moral or immoral, meet, and where virtue and vice converge and triumph. Its palaces and parks, its playhouses and preachers, its tall steeples and costly churches, its libraries, lectures and learning, are all evidences of its greatness and its glory. A great city is a great kaleidoscope, each corner turned giving a new view of its "boundless contiguities" of brick walls and brick sidewalks. It is a thing made, and like other things made puts on changes in accordance with the whims of the makers. No one of the arts is so yielding to the blandishments of fashion as the architecture of a city; and

its changes of form and feature and adornment, if not regulated by the seasons, as in the country, is more sensational. Its interior arrangements and decorations are of the same changeable and evanescent character — so that returning children find it difficult to recognize the old homestead, if it shall happen to be old. In these modern days of no-end-to-progress, the heirlooms are all in the attic, the house fire in the cellar, the pump a thing of the past, the family carriage everybody's horse car.

It is not the purpose of the present paper to depreciate the city. Whatever we may think of it, it is the handiwork of man, and if without a vestige of nature, which it is not, is a monument of his genius and industry. It is all his work and will bear his praise; but when we come to compare it with the country, — the jewelry of the one with the gems and glories of the other; the luxuries of the city with the sports and enjoyments of the country; the artistic show of walls and windows with the blue sky and broad landscape; nature everywhere with nature nowhere, — even then the work of the journeyman redounds to his honor, but leaves to the country all its glorious revelations of life and being and their great author.

“ Not wholly in the busy world, nor quite

“ Beyond it, blooms the garden that I love.”

Every blade of grass, every wild flower by the way-side, every blossom on the vine or berry on the bush, every feather on the robin, every chirp of the tiny

sparrow, every murmur of the little brook, has its attraction and mingles beauty and delight with its purpose. Nature revels in her variety of plant and twig and blossom ; insect, bird and creature. Here along the margin of the river, shaded by the royal elms, quiet and harmony mark the scene and there comes over all that transparent veil of delicate shading, as if it were fairy land, filled with joyous life and conscious beauty. Still and noiseless here are the rough things and ways of city life. There may be

“ A little noiseless noise among the leaves,
 “ Born of the very sigh that silence heaves,”

Or perchance a pleasant melody meets the ear, in which the song of the humming bird's wing, the note of the robin, the lowing of the herd, the sough of the pine, all harmonize in the spontaneous music of nature. It is her inspiration, her song of praise, her never-ceasing *gloria in excelsis*.

“ The birds at rest or on the wing,
 “ With notes of angel-sweetness sing,
 “ And insect hum the breeze prolong,
 “ The bass of nature's grateful song.”

Here again in the deep wood, under branching chest-nuts, fragrant pines and tremulous poplars, the air is loaded with perfume and redolent of sweetness. In the spring time every bud is bursting into life and form, every twig robing itself in new garniture, every gentle bank clothing its slope with freshness and beauty. The

wing of the bird with a straw to build its nest, the hum of the bee seeking the flowers, the chirp of the squirrel for its mate, mingle like a sweet symphony with the rustling wind or the murmuring stream. Here lordly man, as he cuts down the monarchs of the forest, the growth of a hundred years, to construct his city palaces and his floating castles, may hold converse with nature and profit by her lessons of art, beauty and taste. It were strange if the scene, the place and the silence should fail to impress him and for a moment stir, as all the streets in the city will not, his better nature and awaken his higher aspirations. He feels the influence of the works and scenes around him, and more rightly appreciates his own manhood. City foibles and selfish wrangles, ambition's toils and cupidity's deceits, the pretensions of wealth and the heartless displays of fashion, find no field for exhibition or practice in the blessed retreats and peaceful homes of the country.

“ Summer or winter, day or night,
 “ The woods are always a new delight ;
 “ They give us peace and they make us strong,
 “ Such wonderful balms to them belong ;
 “ So, living or dying, I'll take my ease
 “ Under the trees — under the trees ! ”

Another poet has said —

“ ‘ God made the country ’ as the sky,
 “ And all these varying beauties
 “ That grace and gem the outer earth
 “ But shadow forth his love.

“ We see
“ In the world of leaf and blossom ;
“ In their cunning development
“ And gorgeous show of life,
“ His marvellous handiwork.”

Prescott, the historian, who enjoyed the country and the sea and only lived in the city when the trees were leafless and the meadows brown, has said — “ Surely a man is better and forms a better estimate of life *
* * here in the country than anywhere else.”

“ Is it not always Sabbath here ?
* * *
“ For doth not Nature’s hymn arise,
“ Morn, noon and evening to the skies.”

And now as we ascend the hill-sides, the most enchanting views of the landscape are spread out in all directions, interlined with bright streams of water and checkered with fields of waving grain —

“ On either side the river lie
“ Long fields of barley and of rye,
“ That clothe the world and meet the sky,
“ And through the field the road runs by.”

In the long distance hills above hills rise into the blue sky until clouds and cliffs mingle in one soft embankment of billowy light. When the summer sunset comes to glorify the day, filling the sky with gorgeous coloring and marking “ the bright track of his fiery car,” then is the brilliant and glowing scene, earth

and sky, beyond the power of pen to describe or pencil to paint. Of such a scene as this and its effect upon the escaped denizen of the city, the poet has well said,

“Methought it calm’d

“His thirst of idle gold, and made him muse

“With wiser feelings.”

Not alone the river and the wood and the hill-top, but the little lakelet is a spot of romance and enjoyment. Nestled in the forest and fringed with green, it mirrors the shores on its smooth surface and lies like molten silver in the sun. It is an inland sea to the native inhabitants, and upon its waters they not only carry on, regardless of custom house restrictions, their homely commerce, but enjoy their summer recreations. They watch it and its motions and count its waves as they roll up and along its sandy beaches. They sail on its blue waters, gather lilies in its pools, and in winter glide over its glassy surface with the ease of the birds and the speed of the wind. O, the picnics on its margin, the berrying frolics in its neighboring pastures, the moonlight and music on its waters, — are they not in the memory like sunlight on the far off hills. The Platonic and Cupidian arts, the ways of the moon and the stars, and the domestic philosophy of housekeeping, are subjects of contemplation around these bright little lakes in the country, for in their sylvan shades and through their opening vistas, rustic lovers walk and “build castles in the air,” in the hope of rebuilding them on the earth for future inhabitancy. Water is

always grand and beautiful : by its swelling immensity in the ocean, by its silver brightness on the lake, by its swiftness in the river, its roar on the beach, its thunder in the waterfall. It is a perpetual study in its moving life, and a perennial delight in its picturesque beauty.

But all these, prominent as they are among the natural beauties and attractions of the country, are not alone its rewards or compensations, where these are required. They afford inexhaustible resources for occupation. thought and action, and are themselves fields of labor and profit as of recreation and enjoyment. In the study of life they are pages in the book of nature, broadly open to observation, rehearsing the secrets of her high art and the perfection of all her works. The mystery of life and the equally profound mysteries of living, vegetable, insect and animal, seen inadequately by sample elsewhere, are here numerous and familiarly presented for inspection and study. Broad acres, boundless forests, and the great heavens, all glorious with its clouds and stars, are ever open and inviting. The rising and the setting sun, not seen between brick walls or from the house-tops, are to be observed across the sweep of the land ; and the coming thunder-cloud, black and threatening, with its silver edges, is long to be seen before it pours its deluging drops upon unsuspecting heads. The hill-top, under the canopy of the heavens, is man's proper temple of worship, reared by God himself, and there rather than in walls of brick and stone, is His presence to be felt. The open field typifies the land where " the shepherds watched their

flocks by night," and calls up in the reverent mind the garden of Gethsemane and the agony of prayer that there burst from holy and inspired lips. These scenes and associations hallow the country, and if anything could impair its claims to a glorious heritage, would redeem and embalm its very name on the sacred page of man's hopes and promises.

Not alone a reverent but an exalted feeling comes to a man in the country : it inspires thoughts which are broad and world-embracing in their nature and humanizing in their tendency. They are not of pride and ambition, but of humiliation, dependence and brotherhood. He feels that he is a man among men and before the law, with elevating conceptions of his relations to God, to life, to his fellow-men. A glow of pristine faith twinkles in his eyes and nestles about his heart, as he looks out upon his fields and over his flocks. If not a prince among the people, he is vicegerent in his own little commonwealth. He never gets mixed up in the city crowds so as almost to lose his personal identity, like a pebble on the seashore or a leaf in the forest. He is a whole in himself, like a sturdy tree on the plain, with faculties and powers and aspirations, undefined if not unlimited, and stands forth in the excellence of perfect manhood, lord of the soil and king over the animal creation. He is where God first placed him, with the earliest mandate of his being as an irreversible law. His life, his peace, his ambition, his hopes, — just as in the garden of Eden, — depend upon his obedience, and where if not here may he realize the

just fruition of his being, and perceive with the eye of faith something of his destiny hereafter.

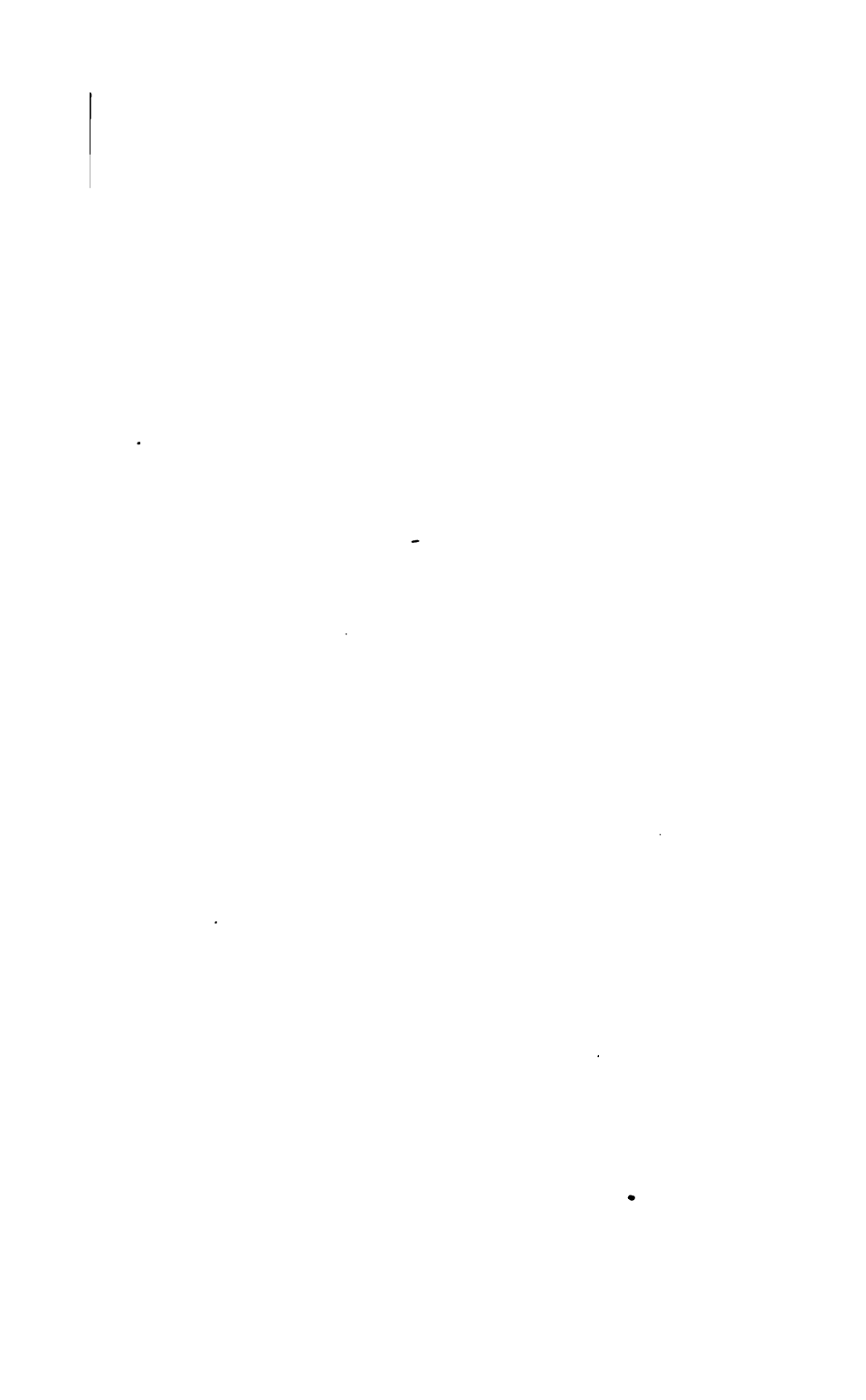
Let not the country, with its open lands and open hearts, be derided. The sunshine and the rain, the season's blessings, for the good of the city and its own, fall upon and fructify its broad acres. It has cultivated and delightful homes on its hillsides and over its plains; bright eyes and warm hearts around its hearthstones, and rich fields of waving grass and golden corn in its vallies. Refinement and elegance sit enthroned in its drawing-rooms; paintings and gems of art, no longer the exclusive property of the city, decorate its walls and mantles; books and periodicals cover its centre tables; music and reading, rather than fashionable gatherings, give zest to the evening enjoyments of the rural home. The country is quiet and peaceful, the abode of virtue and principle; the nursery of men and women; the garden and granary of the city. We look to it for all these, and in our political career as a nation largely for the untrammelled exercise of that great law of popular wisdom and safety, "the sober second thoughts of the people."

It is true the weekly or tri-weekly stage coach, between the country and the city has been superceded by the invasion of the locomotive and the screeching of the steam whistles; but the people, the cattle almost, and the birds quite, have become accustomed to these, and intercourse with the city, probably to the profit and benefit of both parties, has been largely increased. — The commerce also, between the city and the country,

has been strangely developed, and the enterprise and energy of each is burdened for the daily supply of the other. The suburbans are constantly discovering new wants and the metropolitans new necessities demanding larger supplies for their augmenting populations. The country comprises the largest spaces, reckoning its landed interest by acres instead of feet and inches, while the cities have the vast consuming populations ; and of all things in this world, where everything in it depends, more or less, upon every other thing in it, nothing is more manifest or urgent than the mutual dependence of the rural and metropolitan populations, remote and contiguous. They are interchangeable, not in material things only, but in thoughts and feelings, in struggles and triumphs. They are two in theory, but one in fact : the country is the garden of the city and the communities are one ; they are two like the Siamese twins but one like the sea.

VII.

INSTINCT AND REASON.



INSTINCT AND REASON.

POPE, in a line that has become almost too trite to repeat, — though the wisdom of it may never be called in question, — declares that

“ The proper study of mankind is man,”

who is distinctively called by an even greater poet,

“ The glory, jest and riddle of the world.”

In himself, however, fearfully and wonderfully made as he is, man will not find all the wonders or all the mysteries of this life, so that he may well extend his studies to universal nature. There is no particle of earth, no drop of water, no breath of air, no ray of light; none of the aggregations of matter, none of the organisms of life, none of the manifestations of instinct or reason, not endowed with that which is wonderful to our finite intellect. Still, man is a theme of study to himself, unfathomable in the mysteries of life and a storehouse of unknown development.

We are assured that the human race, however wide-

ly they may differ in their characteristics, have sprung from a single pair which first graced the garden of Eden, whom Milton describes as

“ *Not spirits, yet to heavenly spirits bright*

“ *Little inferior.*”

No one who rejects Darwinism, doubts that climate, habits of living, food and other influences, have had their effect upon the human race in past ages, as they do now upon men and animals. It is to be remarked, however, that while some races of men are well formed and symmetrical, others appear to be inferior and much less developed. These differences seem to correspond with and are as widely marked as the differences in civilization. In a rude state the physical powers are developed and the animal in man is most predominant; but symmetry of form, beauty of feature, the beam of intelligence and the stamp of divinity, characterise the highest development and the highest intelligence. Man physically improves with man intellectually; the highest civilization is the highest development.

In all the material of animal life and organism, there is a similarity between man and the brute races, but in physical structure there are essential differences. — Among those mentioned by writers are the erect structure, the legs and feet, the arms and hands, and the skin. Man's arms and hands are his sceptre and the instruments of his superiority: with these he protects himself against the animals and his enemies; with these he achieves those marvellous works of labor, art and

genius which constitute his progress and his triumphs over matter and nature.

Helvetius ascribes the superiority of man to the brutes to the single fact that he has a hand and not a claw or a hoof. Linneus, it has been said, could not even see this distinction, and could not detect any one outward token which distinguished man from a monkey. Could not Linneus see the erect structure and the skin, and the difference between the latter and the hairy covering of the diminutive and insignificant quadruped? Such comparisons are degrading to the living and improving intellect, as well as to the physical organization with which man is endowed. The just distinctions between man and all animals are not simply those of form, structure and locomotion, but are of a higher nature, those of speech, intellect and reason. They are distinctly marked by his capacity to acquire knowledge, to teach and communicate it to others, and to appreciate the wondrous works of nature. Man is endowed with the most glorious attribute of life, Reason, while that quality which we call Instinct, is the highest attribute of the inferior races. Instinct, it is admitted, is a quality which belongs alike to the human family, to the inferior animals and even to vegetable life. Though something more than Instinct and akin to Reason is manifested in the brute creation, — if not in the vegetable kingdom, — philosophers are not disposed to allow that attribute where they must deny the presence of an immortal spirit. Reason enables man to know what he is : Instinct gives to the brute

no knowledge of himself, any more than it does to the vegetable. Pope has described the qualities of Reason and Instinct with a felicity and clearness which cannot be exceeded :

“ Whether with Reason or with Instinct blest,
“ They all enjoy the power which suits them best ;
“ And bliss alike by that direction tend
“ And find the means proportioned to the end.
“ Say, where full Instinct is th’ unerring guide,
“ What Pope or Council can they need beside ?
“ Reason, however able, cool at best,
“ Cares not for service or but serves when prest,
“ Stays till we call, and then not often near,
“ But honest Instinct comes a volunteer ;
“ Sure never o’ershoot but just to hit,
“ While still too short or wide is human wit ;
“ Sure by quick nature happiness to gain,
“ Which heavier Reason labors at in vain.
“ This, too, serves always, Reason never long,
“ One must go right, the other may go wrong ;
“ See, then, the acting and comparing powers,
“ One in their nature which are two in ours ;
“ And Reason raise o’er Instinct as you can,
“ In this ’tis God directs, in that ’tis man.”

Instinct is distinctly manifested and seems to be unerring, in the vegetable kingdom. Dr. Good says “instinct is the operation of the living principle, whenever manifestly directing its operations to the health, preservation or reproduction of the living frame or any part

of such frame." "It applies equally to plants and to animals, and to every part of the plant as well as to every part of the animal, so long as such part continues alive." "It is this which * * * in a thousand instances suggests the mode of cure, or even effects the cure itself, in case of injury or disease."

Numerous experiments have been made with plants to see if they can be induced to violate their natural instincts. Bulbs have been inverted in earth or water, and it is found that the shoot invariably takes the shortest and most direct route to the surface and the roots take the most direct way into the soil — neither can be made to adopt any indirect method. So of vines of all kinds: each has its instinctive way to twine around a pole or line, either with or opposite to the course of the sun, and no inducement or interference on the part of the cultivator, can prevent the bean from turning one way and the morning glory another way. Vines by their instinct will seek a pole or other object to climb upon, and if nothing be reached, they will twine around each other, or if one be alone, it will twine around itself. Plants in the germinate seed have been screened from the light, excepting a small aperture, and toward this aperture the shoot invariably extends and reaches before it throws out any leaves or assumes its usual color. Various experiments have also been made with the leaves of plants whose upper and under sides are of different shades of color: if these be turned over, each separate leaf will resume its natural position by turning itself back and even twisting its

stem ; and if the light be excluded from the top of the leaf and by means of a mirror reflected against its under side, it will reverse its position and turn toward the light. Mr. Knight says when a tree has been planted in a dry soil it throws out most of its roots towards the water. And Dr. Smith, in his *Introduction to Botany*, says "an ash tree which happened to grow from a seed on a wall, on arriving at a certain size stopped growing for a while and sent a root down to the ground. As soon as this root was established in the soil, the tree continued increasing to a large magnitude." This is by no means a rare instance — similar cases are easily to be found in rocky regions of country. "If a plant whose nature requires much humidity be reared in a dry situation, it will exhibit symptoms constantly indicating decline. Place a vessel of water within a few inches of one of these, and in the space of a night the stem will reach it, and a leaf be discovered floating on the water. It will revive and continue to flourish as long as the water is kept near it, and eventually begin to bear fruit."

There is, of course, no end to these illustrations, showing the habits, in fact the nature of vegetable life, which Dr. Good defines in a qualified and limited sense. Instinct whether it be an adjunct of life, or a quality of life itself, is not a power to be called into action at the command of the will, nor when in action can it be applied at pleasure or controlled at any time. It is an inherent power, not acquired, and not only "comes a volunteer," but is self-acting and impulsive and knows

no obstacle. Reason may supercede it but cannot control it, and its operation ceases only with the cessation of life. In plants, it would seem to be the living principle, according to Dr. Good's definition; but in animals it not only governs structure and growth, but guides in actions which seem not to be impulsive or spontaneous — and herein, in the animal, Instinct approaches to human Reason and partakes of its nature. The animal refuses food that is unsavory or unpalatable to it; defends itself from its enemies or attacks its victim; changes its abode or feeding grounds; exhibits evidences of memory and of affection — none of which pertain to the instinct of plants. The horse and the dog recognize persons, places and things, and rarely err in the recognition of a road or a friend, while plants are capable of no similar or equivalent exhibition of instinct. Certainly it must be that the instinct of animals in these respects is different in nature from, and higher in its manifestations than that of plants, which have no control of their own and are the mere organisms of instinct or the principle of life.

Animals learn many things and Darwin says in a wild state they improve in knowledge, doing things which seem to be the result of something higher than instinct. They remember what is taught them, and in some cases the instruction is transmitted to their posterity, as in various breeds of dogs. All the domestic animals are susceptible of instruction, and we have heard of a robin which answered to the name of Dickey and of a toad taught to present himself when called

by name. Cats appear to educate themselves, as monkeys do, by imitating what they see done: many instances are known of cats that would open some of the house doors very readily, holding themselves by the handle and raising the latch with one paw. One remarkable instance is related of a favorite cat that opened some particular doors with great facility. The family took her with them into the country to pass the summers and at length lost her. She was recaptured the next season, but so changed that she was not identified. In order to settle the doubt they shut her into a room where she had been placed before and she immediately opened the door and walked out very familiarly, thus proving her identity.

A very common illustration of animal instinct is mentioned by Dr. Good as observed in a brood of ducks brought up by a hen. "Contrary to all the instincts and feelings of the foster-mother," says he, "they plunge suddenly into the water, while she herself trembles piteously on the brink of the pond, not daring to pursue them, and expecting every moment to see them drowned," while, he adds, "they are obeying an irresistible impulse stamped in the interior of their little frames, and which is equally remote from the laws of mind and mechanism."

What Dr. Good means by "feelings of the foster-mother," we do not know, but think they are not quite "equally remote from the laws of mind and mechanism." They certainly are very remote from mechanism. Instinct, no doubt, prompted the ducklings, but

it was not instinct that held back the foster-mother : it may have been fear. Instinct acts but does not consider. It is absurd to speak of an instinct that stops to deliberate and tremble. But a stranger case than this has been related, though we are not prepared to vouch for its truth : a brood of ducklings which had so astonished their foster-mother, the hen, were still accompanied by her in their aquatic excursions, by the assistance of a goose, who each day with a gallantry that would do honor to reasoning man, suffered the hen to get upon his back and thus sail around the pond after her truant brood. This was not only an indication of intelligence and confidence on the part of the hen, but an exceeding degree of consideration and politeness on the part of the contemned and proverbially stupid goose.

Of course there is no end to the relation of these instances of sagacity, more or less remarkable and more or less reliable : everybody has heard of learned pigs, learned dogs, learned canary birds, learned monkeys, parrots and the like, all of which have exhibited traits of scholarship beyond anything that pertains to the instinct of the growing plant and approximating to that higher attribute which in the human family we call Reason. Many animals, self-taught perhaps, have manifested instances of sagacity that are very remarkable and hardly to be explained by instinct as defined by Dr. Good. There are statements of the horse that went to the blacksmith to have a nail taken out of his foot ; of the dog that went to the surgeon to have his

broken leg splintered ; of a cat nursing a litter of puppies, and of a hen that undertook to brood a family of kittens until she quite smothered them ; of the horse that pumped water at the well for his fellow-horses ; of the robin which carried its motherless young to another robin's nest ; of the honey bird which guides the bee-hunter in order that it may share the plunder — all veritable, no doubt. Gentlemen who become acquainted with dogs as they do with men, become attached to them, and who doubts that the affection is returned in all purity and sincerity. We are told of a pointer dog who would scarcely notice the brother of his owner, until the former relieved him of a troublesome disease, and the dog finally died at his feet. The same dog was loaned to a sportsman on one occasion : upon his firing at some quail without bringing them down, the dog turned and gave his companion one severe look in the face and trotted off home, leaving the sportsman to his own achievements. So with horses ; and it is common to hear a gentleman say of a favorite horse that he knows as much as some men, and certainly there is often much of truth in the statement.

All these things are different from instinct as common to plants and animals, which must be regarded as the all-pervading and ever-acting law of organized matter ; the law of the living principle ; as Flourens says "an innate trade, talent or art" ; as Condillac says "a habit without reflection." Darwin, whose opinion on such a point is entitled to consideration, says "there is no fundamental difference between man and the higher

animals in the mental faculties," but that "whatever difference exists is in degree and not in kind," since it cannot include, without large qualification, the higher faculties of animals of which we have spoken. This distinction will give to animals a mental quality greater than instinct and short of reason. Instinct in this view of course is limited and spontaneous, and it cannot be true as Wallace says, that "reason and what is called instinct are the same in kind." The one is organic — has been called mechanical, requiring neither care or thought, — is not controllable ; while the higher attribute is controlled by the will and is distinctly a mental operation, beyond the reach of the plant and approaching in kind to the reason of man. We often do things as we say instinctively and apparently without consideration ; but, of course, they are conclusions quickly reached by reason of their simplicity and our familiarity with the matter. Instinct acts without our knowledge or asking our consent.

Pure instinct cannot be improved or changed or diverted from its purpose : its operations are perfect from the first ; but animals improve in many things, having memory, affection, courage and fear, lacking all knowledge of themselves and being unable to transmit any to their progeny. Each animal begins life as if it were the first of its species, knowing nothing which its parents learned. Some curious accounts of learned animals afford singular evidence of the extent to which they may be educated. Such apt scholarship has been brought to light, if we are to credit the statements, that

with their greater equality and indomitable application, some of them might under favorable circumstances rival man and become the more learned races.

Instinct then is the growing principle, and though it may not work as a machine, is influenced by an organism which knows no hindrance, accepts no instruction, ceases only with the destruction of life. It flows on without effort and performs all its purposes with the steadiness of time; is innate and not only unreflecting but beyond the control of reflection, force or feeling. If it be not the principle of life it is one of the principles of life, inherent in all organism and essential to growth and development, whether it be of the animal or plant, however minute or however monstrous.

Instinct is not brain-work and the possession of a brain is not necessary to its operations; in fact the brain itself in its growing capacity, is subject to instinct as now defined. But animals do brain-work; and while their growth is controlled by instinct, their voluntary actions are prompted, considered and controlled by the reasoning faculty and not by instinct.—The evidences of this reasoning power are very remarkable, very decided, and innumerable instances of it might be added to those already mentioned. It is related of a fox which had stolen a small pig that he doubted of his ability to lift him across the brook: sagaciously taking a clump of wood by way of experiment and succeeding with that he then as easily leaped the brook with his victim as he had with the log.—We are told of an intelligent dog—and there are many

such — whose master, not wishing his company, had shut him in his house, closing as he supposed, all the doors and windows ; but the animal in his search found a window partly open in the second story and promptly joined his master. Now he goes out with the members of the family, but never offers to go on Sundays, when he sees them preparing to attend church. We hear of another dog whose presence was not desired at church. On the second occasion of his accompanying the family, in order to prevent his intrusion into the church, his owner tied him to the wheel of his carriage, where he remained during the services. The animal was conquered and completely chap-fallen ; he went sneaking home and has never manifested any wish to attend church since that time. It was amusing to see the same dog try to get a stone which had rolled under the piazza. Failing to reach it he went upon the piazza and looked through the spaces in the boarding in order to see where it was, and it was only after repeated efforts that he gave it up : a man would hardly have displayed more intelligence than this animal. We are also told of a horse in a country town, which on reaching the village is sure to find his way to the store and post office, excepting on Sundays, when hearing the ringing of the bells, he goes directly to the door of the church. A pleasant little story is told of a canary bird, to which a bit of hard cracker was thrown : finding it could get nothing from it the bird very quickly carried it to its vessel of water and after softening was able to eat it.— In many instances the reasoning power of animals is

very decided and very exact. They appear to know enough not to go beyond their ability and are sure to be equal to their necessities. Many of the wild animals possess a power of reasoning and calculation adapted to their conditions of life, far beyond the reach of unreasoning instinct, very needful to them and very reliable: as for example the elk, deer, moose and others, whose protruding horns and antlers, even if laid back upon their shoulders, are only to be managed by the most exquisite skill as well as strength as these animals roam through their native forests. It seems almost wonderful how accurately these enormous appendages are managed, their expansion calculated and the spaces or distances required for their handling so accurately and instantly estimated, in order that they may pass freely and without entanglement. Other animals, of course, in other ways and for other purposes, are called upon to exercise intelligence, discretion, fortitude or other quality not the result of instinct and of which instinct is incapable; and they exercise these qualities for their own protection, provision and pleasure. They are able to foresee their necessities, comprehend the dangers which surround and threaten them, and provide wisely for the future. They are the creatures of instinct so far as growth and organism are concerned, as man is, but are possessed of a reasoning faculty necessary for their guidance and well-being.*

* Mr. Bree, in his volume entitled "An Exposition of the Fallacies of Darwinism," speaking of Instinct, says, "The great mistake made by Mr. Darwin is in identifying reason like attributes in ani-

Thus, though man may find himself in this regard, more closely allied to the animal races than he had supposed, there is nothing to diminish the pre-eminence of his exalted position in the order of creation. Man in his sublime right, in the image of his Maker, is so infinitely above all other ethereal beings, that his glory becomes more conspicuous by their exaltation. He need not fear to do justice to the inferior races, however nearly some of their powers may approximate to similar powers in himself. He is their master, whatever their size or strength, and they are subject to his will. For this purpose man is endowed with a higher intelligence, more varied powers and a wider discretion. He knows himself, understands his relations to his Creator and to created things and is justly held responsible for the right exercise of his faculties and his power.

mals with the reasoning faculties of man, and confusing the same with instinct, from which it entirely differs." p. 165.

It does not seem to us that Mr. Bree has relieved the confusion or thrown any light upon the subject. In speaking of the formation of the spider's web, he still further confuses the subject by saying—"this structure *must* have been formed by *instinct*, and that *instinct must* be guided by a reasoning power exterior to the animal."

The italics are Mr. Bree's. If these quotations are a sample of the author's "Expositions" the speculative philosopher will not suffer much from them.

NOTE. The two lines quoted on page 152 are from Pope.

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VIII.

AMERICAN INDEPENDENCE.

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AMERICAN INDEPENDENCE.

[Extracts from an Oration delivered in the State of Nebraska,
on the 4th of July, 1871.]

FAR away on the eastern shore of our country, where the waters of the Atlantic Ocean roll in upon the land with every swelling tide, lies in the bright sunlight of her history the proud State of Massachusetts. There on her bleak shore is the landing place and home of the Pilgrim Fathers. There in her fields and in her halls, as if each human right had a separate nativity, is the birth-place of American Independence. And there today, crowning her most famous hill-top, the American Patriot finds the consecrated altar of his country. In this good old State, we hardly need to say here or anywhere, the early settlers lived for many years, peaceable, loyal and faithful subjects of the Crown of England. "The freedom which they toiled for," they had secured to themselves and hoped to transmit to their posterity. In an evil hour, by the acts of a bad-tempered King, ruled by unwise,

if not vindictive counsellors, these loyal and loving subjects were made the objects of unjust and oppressive laws. These were borne with humility and patience until submission was no longer a virtue. The people of Massachusetts generally, and the inhabitants of Boston in particular, were singled out for punishment and ministerial vengeance. Some of the leading men were outlawed and a price put upon their heads. Resistance to monarchical authority and parliamentary oppression was inevitable, and Massachusetts — loyal and honest and patriotic still — took her stand on the broad platform of human rights against injustice and oppression. The people of Massachusetts denied the authority and boldly defied the power of the British throne. The town of Boston was at this time the scene of momentous events, and in 1775, was the head and front of the American Revolution. The town was filled with British soldiers and the harbor with British shipping, ready to spend their power upon the refractory inhabitants. In the state of feeling then existing occasions of violence were not long wanting ; and on the seventeenth of June, in that memorable year, the first real conflict of arms — which opened the war of independence between mother and daughter, kingdom and colony — took place on Bunker Hill. The scene of this encounter has been marked, that posterity may know it forever, by the loftiest and most substantial monumental structure in the world, not so much to commemorate a battle as to authenticate and dignify principles and purposes. On the fourth of July, 1776, a little more

than a year after the battle of Bunker Hill, the American Congress declared the Independence of these United States as then existing. It was a bold and glorious deed, and the patriotic signers of the instrument risked their lives, their property, and pledged their sacred honor in the momentous event. The power, the talent, and the wealth, the wisdom and military skill of the country were equally pledged to sustain the declaration and maintain the independence of the country. We who live today and enjoy the rights of citizenship, well know how this declaration and the duties which it demanded, were sustained and performed. We are permitted to read of the bravery, the sacrifices, the martyrdom of the fathers of the country in this cause, which have secured to us all the liberty we enjoy.—Those noble men have all passed away and not one remains today to witness the growth and prosperity of the country or share the gratitude of the people. The fruits of their labors and the example of their lives are for us to enjoy and imitate. All honor to their names ! All honor to their memory !

* * * *

Here again today, on this anniversary of the Declaration of American Independence, we see the same spirit and the same glow which are flashing all over the country, called forth by the great event we celebrate. Here as in the east and south, farther west and farther north, over the whole land, there is such an outpouring of thanksgiving as no other people, as a nation, ever offered for their temporal welfare. Today, as if it were

set apart by irreversible mandate of more than monarchical authority, the people of these United States recognize and celebrate, in a Christian as well as festive manner, the birth-day of the Republic. Old as the world is, many and powerful as have been the governments, ancient and modern ; numerous as have been the populations of nations, and fearful as have been the struggles for religious dogmas and human rights, never before have thirty or forty millions of people gathered around the altars of their country to celebrate their personal freedom and the national independence. We rejoice in our freedom ; we glory in our independence ; we hail each as a great step towards securing the rights of man among the nations of the world. We are at liberty to worship the God of our fathers in the way and manner approved by our judgments and justified by our consciences, calling no man master and recognizing all men as brethren. We acknowledge no "divine right" of kings, and no sovereign but the people. The men in office are men of our own selection, deriving all their power from the will of the governed. Unmolested by any governmental authority, we pursue our own business and under laws of our own making, seek our own prosperity and enjoy the rewards of our own labor. We have entire personal liberty, restricted only by regulations which we enforce upon all alike, and we enjoy entire independence to do, or not to do, as shall seem to us best, whatever may contribute to our happiness or welfare. While we are protected in the enjoyment of this large liberty and are permitted in all hon-



est ways to seek our own enjoyments, we do not feel the presence of the government and very rarely see the insignia of any authority other than our own. We have, it would seem, attained all the freedom that any people can ask — certainly all that we need and most assuredly all that we can enjoy. One step in any direction farther than this it will not be deemed safe to go. Every reasonable and proper freedom that man can enjoy or exercise, consistently with the rights of others, in virtue of the Declaration of Independence and the Constitution, belongs to every American citizen, native or adopted, as his birth-right and unquestioned heritage.

Is it not just and proper that while we enjoy these blessings we should show our appreciation of them and the great act that secured them for us ; that we should recognize this day as the anniversary of our freedom and the independence of the nation ; that we should celebrate the opening of a vast country, then but little known, to which the poor or oppressed may come and find home and happiness without price ? This great attainment it was the purpose of the Declaration of Independence to secure and of the Constitution to protect ; this great attainment it is the purpose of Bunker Hill Monument to commemorate ; this great attainment is the event which we meet today to celebrate.— Our prayer to God is that the blessings which the Fathers of the Country secured to us — which they sacrificed so much blood and treasure to gain — may ere long be enjoyed by all men. We glory in our

country, its historic States, its flourishing cities, its broad prairies, its fertile fields, its magnificent rivers, the industry, the enterprise, the intelligence of all the people. We glory in our Constitution—the freest and wisest ever made by man and a model for all nations. We glory in our national greatness, in our progress in the arts, sciences and religion, in civilization, refinement and law, and in all that may elevate and give character to a people.

Here, in the great west of our country, we have opened, as it were, a new world where all may share the bounties of the government and nature alike—a region of such marvellous fertility, of such boundless resources of wealth and happiness and greatness, as have never before, outside the garden of Eden, we may almost say, been offered to any people. This blessed and beautiful, this broad and bountiful and glorious country, with a sky so bright and a future so brilliant, is today, with its open gates and inviting fields, offered to the oppressed or homeless of all nations. It offers a home alike to the rich and the poor, the free and the burdened, and there waves over its green fields, its gentle slopes, its boundless prairies, and its noble rivers, the comprehensive and assuring motto, “Equality before the Law.”*

While it is our privilege to enjoy all these unusual blessings, the inheritance of our fathers, be it ours also—our pride as well as duty—to preserve them as pure and undefiled, as broad and unabridged, as they

* Motto of the State of Nebraska.

have been entrusted to us. Education and cultivation are the great safeguards of the virtues and liberties of a people. These are to be provided for, sustained and nourished, unhesitatingly and unstintedly. The burdens and responsibilities of the future, as well as its privileges and its blessings, are to be borne and enjoyed by the children of the present time. It has been well said by a distinguished son of Massachusetts, one of nature's noblemen, that "Education is a debt due from the present to future generations."* Let not the cravings for wealth, let no unworthy ambitions, no mistaken notions of economy, induce us to neglect this debt, or interfere with its full and prompt payment. While we do honor to the memory of the fathers; while we rejoice in the freedom which they won; as we enjoy the blessings vouchsafed to us, as we live in our children, as we love our country, let us not forget that

"Liberty is a trust to be transmitted to posterity."†

From small beginnings, as we have seen; from a handful of pious Pilgrims, we have become today a great and powerful nation, at peace with all the world and content with our possessions. Our fathers won our independence — their sons have thus far maintained it against foreign and domestic enemies. Our government is recognized in all quarters of the earth, and our ships display the stars and stripes in every sea.

"Forever float that standard sheet !

Where breathes the foe but falls before us ?

With freedom's soil beneath our feet,

And freedom's banner streaming o'er us ?"

* George Peabody. † Motto of the city of Charlestown.

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IX.

MISCELLANEOUS PAPERS.

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MISCELLANEOUS PAPERS.

THE COMING WOMAN.

It is a good thing, no doubt, to look once in a while, — and the oftener good things are looked upon the better, — into some of the peculiar phases of society, and try its customs and conventionalities by a common sense and practical standard. We fall so naturally into the ideas and ways set before us and considered as the established forms and customs of the times, that we neglect to look carefully into them or test them by our own judgments. Many of these, — perhaps right enough and just enough, if not exaggerated or carried into excess, — are so deeply engrafted upon society that any modification or change of them is hardly to be looked for even if they should be condemned by our individual judgment.

A great deal has been said and written in England, and in this country, where also the English articles have been widely read, concerning "The Girl of the Period," — in the secular vulgate "Fast Girls," — meaning thereby fashionable young ladies of the higher classes, popularly known as the *belles* of society ; and

concerning their habits, manners, dresses, dissipations, and other matters. They are said to be careless, indolent, thoughtless, illiterate, showy and fantastical, possibly heartless, — in short, fashionable, — running down to the condition of an invalid in the city in the winter, (in England,) and then retiring to the country to recuperate for the next season's dissipations, luxuries and late hours. Living such a life as this, — so briefly outlined and easily to be filled-in by every reader, — they are poorly fitted to become house-keepers, heads of families, domestic companions, (if such a thing be not wholly out of fashion,) or mothers. They are, it is alleged, completely unfitted for the cares, burdens, duties and responsibilities of life : and in point of fact, whatever the nature of these, — cookery, dress-making, nursing the sick, laundry work and what other, — they know nothing about them, either as to the doing of them, giving proper directions concerning them, or knowing when they are properly done, if done by others. They have been trained up, if training it is to be called, with boarding-school education, as it would seem, for one sole purpose, and that purpose marriage : the thing of all others they are most unfitted for, and most to be dreaded, rather than desired, by themselves.

If this state of things is true of England, or France, or both, and is to some extent so, and fast becoming more so, in this country, what is to be said of it ? what is to be done about it ? Or a more practical inquiry is, What is the tendency and what is to be the end of it ? Inability, incompetency, disease, short life,

weak brain, shattered nerves, — are not these, or still worse, idiocy and insanity, to be the inheritance of certain classes in coming generations ? At any rate, the least that can be done, on the supposition that there is truth in the statements, is to ask who is responsible for the condition of things described ? who or what shall remedy it ? who is to see that it does not go on increasing, so as to weaken and undermine the energies and healthfulness of our mixed but vigorous nationality ?

It has been said, in a sort of homely fashion, and the words have been read in what are called popular journals, by the young ladies who devour them : “ Young women are in a great degree what *young men* make them ” ; and in other words from the same source it is said, “ Young women will make themselves what they have reason to suppose young men wish them to be.” If this be really so, and the statement be considered as an answer to the condition of things described, it may be thought that parents, unless it be through their sons, are not to be considered responsible for the conduct of their daughters. The rule of fashion, boarding-school influences, existing manners in life, furnish the formative processes, and the result is inevitably such as these should produce. It may be that here is where the evil is to be found — parents do not interest themselves in the subject, or if they do it is only to help on the methods adopted with a view to secure husbands for their daughters. That an endeavor is made to educate them perhaps is true, but they are allowed

to make themselves the thoughtless, frivolous, fashionable, weak things, which they think marriageable men, whose good opinion they seek to gain, would have them ! The follies of the hour, the excitements of the nightly revel, the lassitude of indolence, the luxuries of dress, the vanities of show and gewgaw, rule paramount in the higher classes and are copied and imitated in the lower classes ; and the presence of these accounts for the absence of all consideration of the duties, cares and responsibilities of life. Young men, no doubt, adopt the life that is presented to them much in the same manner, and whatever their sober thoughts are, they would be more or less than human, not to prefer a brilliant, dashing partner in their mad revels, whether innocent or fashionable. Neither party is able to see deep enough into the mysteries of life, or far enough into the dim regions of the future, to give up the frivolities of youth and its amusements, — or even temper these with judicious safeguards, — for higher meditations, nobler resolves and pleasures more ennobling and healthful.

Who then, if not the parents, one or the other or both, is to do the thinking and the work required in this case ? Is there not here something bearing upon woman's duties, if not upon what are technically called "Woman's rights ?" As a consequence of what is alleged, the assertion is made, as applicable to all civilized nations, of the physical deterioration of the race and the shortening of human life : at least this is what physiologists assert and offer evidence to sus-

tain the assertion.* This deterioration and decline of life are, it would seem, the outgrowth of civilization, refinement and luxury. Not only is the average duration of life becoming less, but a larger proportion of children born in our cities die at an early age ; and the average number of children born in families is less than formerly even in these comparatively new settlements. where extreme poverty without misfortune is almost inexcusable. These statements seem to show an alarming deterioration in physical energy and health, consequent, as believed, upon the present modes, manners and customs of society ; upon luxurious living, over-heated dwellings, late hours and extravagant habits ; and there is to be added to these, hard work, political and fashionable ambition. It is plain that there is something in some or all these matters, unperformed and neglected, unregulated and unthought-of, which belongs to the sphere of woman. Man has obligations upon him as a man, and there are others which he must share with woman ; but in things pertaining to luxury and extravagance in dress and living, domestic dissipation, careless and thoughtless exposures, especially among the daughters and future mothers of the land, there is much to be expected from woman. Our country and our times,—the best welfare of the human race—demand her highest services in this direction much more than in politics or political life, in voting or in holding public office.

* It is but just, however, to say that this statement is controverted by able writers.

But it may be said, things are different in this country, and in fact in all countries, save among the most wealthy and fashionable classes. Young women are becoming more practical, more sensible, more self-supporting, without, it is true, any diminution in the pursuit of husband-catching. They are entering the professions, — even those of law and medicine, — becoming artists and scientists, lecturers and preachers, as well as teachers and governesses. They seem to have discovered that

“The world was all before them, where to choose,”

and some no doubt, may reasonably be supposed to prefer wealth or fame with independence, to matrimony and its risks. Then there is constantly going on in this country, a social revolution by which every few years, as wealth changes hands, families change their positions and relations to each other : the energetic, active, business classes, accumulate the wealth and become the leaders in fashionable life ; while the law, disregarding the rights of primogeniture of other countries, at intervals divides and disperses the property and style of the preceding generation — the alternation seems to be imperative. Thus it would seem, whatever wealth, fashion and dissipation may do in derogation of the human race, nature and law may be relied upon to maintain and restore the true dignity of manhood and to remedy to some extent by generations, the inequalities of life and toil. Happy the country wherein there is a limit to excess and degradation ; wherein law conjoins with nature in the remedy of abuses and derelictions.

BRAINS AND BRAIN WORK.

BRAINS, as Henry Ward Beecher would say, are the gift of God rather than a chance endowment, and are not to be picked up by the wayside or purchased at the saloons. Money, whatever that may be worth, is an acquisition, which any simpleton may obtain if not keep, but brains are neither to be purchased, prayed for or stolen outright. They do not seem to be altogether transmissible, by intention or otherwise, but belong of right by Supreme endowment to the possessor. They are truly the gift of God and their possession is attended with responsibilities as well as duties. The young woman who is said to have given such pertinent advice to her lover respecting the matter of brains, was witty — or smart, as the phrase of today is, — if not philosophical. When he proposed to go to the great western *El Dorado* and knock out some rich man's brains and steal his money, she very quietly suggested that he had much better steal his brains. Dr. Morse, of Charlestown, one of the early ministers of the town, father of the distinguished inventor of the magnetic telegraph, once expressed a doubt whether he had any brains: in a riotous scene which occurred near his residence, the Doctor thought by the influence of his character and the dignity of his presence, that he might be able to calm the disturbed elements and restore a

peaceable state of things — so he ventured into the midst of the scene with bare head and in the habiliments of his study. Hardly had he raised his voice to the unreasoning crowd when he was struck upon his head with a loose brick, so severely as to render him insensible and require his immediate removal from the scene. His friends were apprehensive of a serious result from the contusion for a time and all the parish poured in to condole with and comfort him. In the kindest manner possible one of the tender hearted and sympathising parishioners observed to him, “Well, Doctor, it is a great mercy you didn’t have your brains knocked out.” “Brains!” replied the Doctor, “Brains! don’t talk about brains; if I had had any I should n’t have gone out.” The prompt and honest reply of the Doctor is an admirable specimen of his humor.

Brain work is said to be harder, more fatiguing and more exhausting than manual labor which can be performed without any effort of the brains. Yet there is, no doubt, a vast amount of brain work, so called, which had much better have been manual labor: work that has not paid anybody, however much time it has cost or wasted. The labor of brain work and the exhaustion of brain work, of course, depends upon the kind of work and not much less upon the kind of brains.— There are brains, no doubt, that may be worked indefinitely without any special result but that of weakness; brains that no amount of work will tire; brains that are labor-proof. In fact there seems to be about as great a variety in brains — and more eccentricity —

as in other things ; but in the case of real brains and real work, the tax upon the system, physical and vital, is no doubt greater than in manual labor for the same time. Yet the laborer thinks his work the hardest, especially if it is in any degree distasteful to him. He looks upon brain work, with his understanding of it, as relaxation, as not labor at all, possibly as a recreation ; while in point of fact, to the man who is required to work with his brains daily, and it may be nightly, any other work is in the nature of relaxation, calling into action the muscular energies only, which to him is an exhilaration and pastime.

There is evidently something about brains which everybody does not understand ; something we may say which nobody understands. All that we know about other things, even in their smallest particulars, we know by means of brains and could not know else, yet brains to brains are a mystery. We may see them, handle them, weigh them ; and perhaps the microscope will tell us whether they belonged to a man or a calf, but we cannot appropriate them, nor grow them, nor transmute them into any active intelligence. We know, or least we say, that brains make the man ; the want of them the fool ; and there are all degrees of gradation or degradation between the two ; yet no man has a reliable judgment as to his own portion : if absent they are hardly missed by the sufferer ; if moderate they are sure to be magnified ; if large sure to be exaggerated and self-reliant — sometimes even presuming in regard to higher things. No exact estimate is possible by the

possessor or others, for all are interested in the average. The conclusion may be true that every one over-estimates himself and under-estimates everybody else ; and the resultant fact is inevitable that brains cannot understand brains. But, as against this conclusion, it is said that we are liable to make mistakes and do sometimes over-estimate brains in others, especially in men who by some means reach a more prominent position than they are able to sustain ; and, on the other hand, by the same process, we often under-estimate public men who are less presuming : who think more and say less.

The use of brains, it is fair to presume, is well understood, if brains themselves are not ; but as to the problem how they are used, there might be a wide difference of opinion. They are well used and by the same token ill-used ; but on the whole we should say, brains are well used, and profitably used ; but not at all times to that end or with that intention. They are applied miscellaneously to cunning and crime as well as to learning and literature ; to politics and polemics as well as to invention and discovery ; to vicious as well as to virtuous habits ; in short to all things good, indifferent and bad, it is hoped and believed in this order. But the amount of brains, more or less, is no guarantee of anything : much is not more safe while more responsible than little. The passions are sure to be strong with large brain power and not under much better control where the brains are smaller : so that brains whether large or small, are no criterion of virtue or self-control.

Brains, it seems, go by weight. The average brains of men and women are said to weigh between forty-five and fifty ounces; but it is probable that, as in most other things, there is a difference in the quality of the article. The average eighty per cent. of water must vary largely between the maximum and minimum in order to account for all the manifestations which we see of brain power or brain weakness. Whatever the maximum or minimum weight may be, it seems as if some men had a very small modicum of brains, while their use is so ill-regulated in others that they would be better off if their lives could be controlled by instinct alone — which, as far as it goes, is a sure thing.

“Absence of mind” is not absence of brains, but the want of thought: a momentary insanity. No sane person would throw away an oyster and attempt to eat the shell, or put the candle into the bed and blow himself out; or do any other absurd thing which only an insane person would be supposed to do. So that it is possible, if Dr. Morse had stopped to think what he was about to do, he would not have exposed himself to the possibilities of injury from an excited mob.

Scientists presume to say that men differ as much in regard to brains as in regard to other personalities, and that the brains of one man are not like those of another in size, form or color, and of course are not to be expected to give the same results. So with the brains of other animals: they differ essentially in the same species, not two of them being alike. This is precisely what should be expected both of men and animals. So

that if brains are to be studied, it must be in connection with character and development in the same individual whether man or dog.

However all that we have said may prove to be, it is very clear that brains are brains, and their possession an endowment of manhood greatly to be desired, and, as the world goes, rather necessary to safety as well as success. Brains govern the world — occasionally — or it may be misgovern it — likewise occasionally — just as it happens for the time : for brain power is not always uppermost, any more than virtue or goodness. — Brains as a power are not always a match for physical power. Money, as a power, may subordinate physical power or even brain power : so that physical power may predominate and money power rule for itself ; but in the end, — like Truth and Virtue, — Brains will prevail, and that is all we may expect of anything good in this world, until after the millenium.

POLITICS AND PUBLIC OFFICE.

It has been said that politics and its concomitants are the bane of the country ; a greater burden and a greater evil than taxation ; but of course what can we do without politics and political parties ? We should stagnate outright, and government would stagnate, too, or come to something worse. The idea instilled into every mind, no matter of what tender years, that public offices are open to all comers, and that any waif or foundling picked up in the street, may become Governor of the State, member of Congress, or even President of the Republic, has a tendency to make every boy, and consequently every man a politician and peradventure an office-seeker. Many of them are quite willing to go into politics in preference to business, and too many of them do so to the neglect of more honorable and generally better paying pursuits. It has been calculated that for sixty thousand offices in the gift of the general government, there are at least one million candidates — more or less pertinacious, more with pretensions and less with merit. Once in four years then, at least, an army of a million men are dreaming, planning, scheming, begging, or in some way at work in efforts to secure the emoluments and honors of particular offices — losing their own time (most of them) wasting the time of other people and demoralizing politics

generally. It is not simply that this state of things exists every four years but to a considerable extent, if not in such large numbers, nearly all the time ; or at least pending elections. This in relation to the federal government alone. Then there are offices in and under the State governments, amounting no doubt to many thousands in number, paid or unpaid, and for these about all the male inhabitants of the land are eligible and many of them in training for or seeking them. No matter what the office may be, or what particular qualifications are required for the discharge of its duties, — these are supposed to come by intuition, if they come at all, — any politician, who has lighted the candles of the caucus room, is ready to accept it if offered to him, or seize it if within his reach.

It is a consideration whether these statements should not have some weight in the determination of the woman suffrage question. If all the women of the land are to be made voters and possibly thereby office-seekers ; and if women seek the public offices, what in the world will prevent them from securing such as they may desire or prefer for themselves and their friends ? Many gentlemen in our respectful and gallant populations, where ladies are candidates for popular offices, either by election or appointment, will consider their success as a foregone conclusion. The only way a man will be able to secure an election or an appointment, will be in making interest, pipe-laying or other, with the women voters. The "lords of creation" had better look into this matter before they commit themselves



to the cause of the sex in this regard, as represented by a long list of names more or less distinguished among women. The disparity between the number of offices and the candidates is sufficiently disheartening to the most hopeful now, and the measures proposed by these ladies in behalf of their associates, will tend still more to their embarrassment, pecuniary and otherwise.

There is, however, as has been suggested, another side to politics as a business. Follow it as we may, practice it as we will, in ninety cases out of one hundred it does not pay, neither in honor, peace of mind, or dollars. In the first place there are few public offices in the nation whose promised salaries, less the "pickings and stealings," will respectably sustain the incumbent and those dependent upon him for their support and education, and a much smaller number in which, without meanness, it is possible to save anything for future use or necessities, which every man in business expects to do. A member of Congress, until recently, could hardly live in the capital of the nation. A foreign minister, on the average, cannot afford to live abroad with any considerable family, if dependent upon his salary alone for support ; and there were until lately consular offices, which paid better than that of full minister in the same country. So of the home offices : they may be generally self-sustaining, but few of them are to be considered profitable to those who hold them. The President of the United States, — although it is believed some of the incumbents have laid up a portion of their salaries, — cannot maintain himself and uphold

the honor and dignity of his great office, without the thoughtful consideration of the committees of Congress. In the case of members of Congress, the most distinguished among them are taxed in their private resources to sustain their position : only the nobodys are expected and enabled to reap pecuniary profit from their positions. Offices in the custom houses, internal revenue and post office departments, requiring a different class of men, possessing executive ability rather than talent, business standing rather than position, pay somewhat better, and are often remunerative to the parties who hold them. Nevertheless, there are presidents of banks, insurance offices and railroad corporations, who are more heavily paid, and even skilful artizans, (to say nothing of a host of successful lawyers, whose incomes are larger than is that of the President of the United States,) who receive much higher compensation for their time and labor than three-fourths of the great army of government office holders — some of whom, it is understood, often have to pay nearly the whole of their first year's compensation to outsiders or insiders for the places they fill. With still smaller offices and still smaller people, — the proportionate income affected by the proportionate expenditure, — the rewards are more satisfactory and the gift is sometimes almost elemosynary. But upon the whole, even the profitable political offices of the country do not pay for what business men consider first class capacity and first class honesty, though of course, these do, in order to save the nation, sometimes get into them and stay there.

These things being so, what shall we say of that class of public offices known in political vernacular as offices of honor in contradistinction to those of emolument, high and low, big and little ? There are some of these, no doubt, that are honorable and worthy of the highest talent, and sometimes the highest talent reaches them ; but this is not often the case. The right man in the right place is a phenomenon and to be looked for as such. Offices of honor are sometimes as earnestly sought as those of emolument, perhaps when the labors appear to be less and the rewards greater ; but in cases where the position is less than the labor, the office seeks the candidate. Little as many of them are, it is frequently that men of respectable abilities, with a kind of homebred talent, who approximate the point of distinction and never hanker after greatness, consent to fill some of them and do good service as they imagine for honor. The emoluments men get who hold political offices of honor would make a small show in any earthly exchequer. They must find it in a conscientious sense of duty performed or nowhere.

Nevertheless, there are few men, born into politics and political privileges which they are capable of understanding, that are proof against the fascinations of political life and the blandishments of public office ; and it is, doubtless, susceptible of demonstration that this taste and desire, sometimes rising to a passion, runs in families : from father to son, and it may be hereafter, from mother to daughter. As matters now stand, there is such a thing as greed for public office ;

not merely for one office, but for several at the same time ; in fact there are parties open at all times to all offers and all opportunities. It is a weakness, very reprehensible on the part of the people, to indulge such persons however plausible their pretensions. It would be safer and wiser and better, and more in accordance with the spirit of our institutions, to banish this practice as we would polygamy : one man to an office, as a rule is hardly more sound than one office to a man as a principle. It should be a plank in every political platform.

So much for politics, politicians and public offices, and if we add to what has been said the axiom that all approve : " The post of honor is the private station," it would seem that there must be something or other about politics that is delusive as well as uncomensating. There are as we know, many excellent men in public office. We honor them, and consider the country their debtor for all the honorable service they render it. It will be well for the nation if the time ever comes when a much larger portion of the people shall see public service as a duty and an honor and not simply as a means of support or political power, and when the people themselves shall feel disposed to elect men to office on account of their qualifications and capacity for the discharge of its duties rather than as the reward of political services of doubtful good.

TALK ABOUT FASHION.

THE Fashions, however trite the theme may be, are ever changing, ever new. Fashion in dress alone has interested many minds, engaged able pens, as well as the arts, the trades and the professions, not excepting either law or divinity, in its illustration and advancement. It has its colleges, its professorships, its students and its practitioners ; its artists and its artizans. It gives daily employment to very many classes in the community, from the importer and trader through a long catalogue of pursuits and occupations to the milliner. Its demands are universal and unlimited, reaching to all the pursuits of life, and controlling all the avenues to wealth and position. It is a very tyrant and rules with unmitigated persuasiveness ; sensible it may be, yet austere, eccentric, and unreasonable ; bold, audacious and presuming. It is benevolent if never charitable, but always extravagant in act and opinion. Its antiquity is unquestionable ; it is older than history ; it is one of the earliest sciences in which the human race made any progress. It exists now in all the freshness and vivacity of its youth, and with the energies of mature and qualified age. It is seen and felt everywhere, without regard to station : in the parlor, in the church or public assembly, in the ball-room, in the street : in all things, at all times and under all cir-

cumstances. Nature, in innumerable ways, is made subservient to its vagaries, but it is in no sense a natural science, since its object is to improve or impose upon Nature ; but that Fashion is a science can hardly be denied. It has indeed, as we have said, its professors as well as its devotees and followers, its apparatus, its periodicals, and, like other sciences, its specimens, both ancient and modern.

Fashion has been most exercised and most observable and, of course, is best known, in the dress or covering with which human beings have in all time protected or ornamented their bodies. These have been numerous, and various and curious, as fashionable things often are when they cease to be fashionable. Anything like a history of the styles, materials and changes in the manner of dress among the different nations of the earth, would fill volumes, and volumes as full of exciting interest as any romance. An account of the fashions of the present day, among civilized nations only, would possess peculiar interest ; and a much greater interest if there were added to it the fashions, — peculiarities and customs in dress and ornament, — of the semi-civilized and barbarous nations.

Fashion, whatever it may now embrace, was originally limited to the daily dress of the people, simply what was required by the condition in which humanity found itself in the beginning. Some sort of clothing has been deemed necessary since the first fig-leaf was used ; and when the human family began to spread to adjoining countries and became subject to changes of

season and climatic influences, new styles of dress were required and adopted. This was the first stimulus of ancient fashion. So also when the people of a country became divided into classes, by the government and court, the nobility and gentry, there arose distinctions in dress and decoration, the cut and dressing of the hair and beard, shape of the cap or head-dress, wearing the sword or other insignia. During the third century, when the Imperial court was transferred from Rome to Constantinople, "the luxury of precious stones and other rich decorations were adopted,"—a fashion copied from the Franks. "Long garments alone," it is said, "were worn by the ancients," and it is added, no doubt very truly, that "male and female dress differed but little." Tacitus says of the Germans, "they were almost naked, excepting for a short and tight garment around the waist and a little square cloak which they threw over their shoulder." The barbarous tribes of the north, who dressed according to their climate, introduced new fashions into Rome, while the Greeks scarcely made any change in their dress for centuries. The Romans conquered other nations and prescribed the fashions for all the people they conquered: the cloak and tunic reigned for centuries, as blouses, sacks and trousers have done since. Female ingenuity, whatever it was, expended itself on tunics and cloaks, and very early gave attention to ornamentation and decoration, which soon became controlling influences, especially with the higher classes and the court. After these early times, when changes became common and such

a thing as progress was recognized, fashion became a power and began to rule. The changes of comparatively modern times swept over Europe as those of later times have swept over the civilized world, innumerable and inconstant, often being simply a reproduction of very ancient styles.

Imagine the gradual advancement of the art of dress-making from the simplest possible contrivance which nature demands — apron, frock, girdle, cloak, sack or blouse — piece by piece, to the never-ending extravagancies and fineries of the present day, and compare Adam and his fig-leaf apron with a dressed gentleman of the nineteenth century. What a suggestive contrast ! But this is not *all* fashion, it may be said. It was originally necessity ; then a desire for ornament ; then somewhat obscurely, Taste ; but these ultimately resolved themselves into all-absorbing fashion, and are subservient to its potent influence. When taste does not originate the fashion, fashion is ready to create the taste, and distinction between them is merely in name. Queen Elizabeth's ruffle, and many since her time ; the Bishop sleeve ; the famous high collar and even the use of false hair, are believed to have resulted from some sort of necessity, although quickly adopted by fashion. High head-dresses, such as were worn by the Dauphiness Margaret of Scotland, in 1400, and narrow flounces, were designed to give stature and grace to short ladies ; while low head-dresses, worn in Luther's time, and deep flounces, accommodate the air and bearing of the taller ladies of high life.

In all ages and among all nations and tribes, Woman has ever been the most earnest and faithful leader and follower of fashion. To her, no doubt, belongs the credit of many important improvements, eminently that by which the sexes are distinguishable. If the fashion of dress with Eve was not originated by her, the necessity for it was perceived intuitively by her superior penetration and sagacity, rather than by the wants or taste of her indulgent and easily persuaded husband, who, to tell the truth, did not know much until enlightened by her. Necessity, therefore, in the case of Eve, may be regarded at least as the mother of her fashions, whatever it may have been since. In the present degenerate times, when folly is everywhere on the wing, the utmost effort of fancy in aid of fashion, is compelled to make some show of utility in her wildest extravagancies. For fear of unjust inference against our common grandmother, it may be well to say that the fashions introduced by her, were the promptings of an unsophisticated mind intent on promoting its own convenience, rather than manifesting any desire, in the phrase of the present time, "to make a show in the world." It was the duty of Eve to provide clothing for her family and to originate the fashions of their dress. This she did without the aid of the ingenious pages of modern periodicals, and even without the poor privilege of seeing how other people dressed their children.

The inordinate love of show and the superfluity of ornamentation, both of person and dress, are the peculiar stimulants of fashion, upon which it lives and

flourishes. Time, labor, expense and skill are exhausted in the conception and execution of its demands. The true ministry of fashion and its progress are not to be considered with reference to the wealthy classes only. We should see if the mechanic, the artizan and the laborer are not better and more neatly dressed than formerly, and whether fashion with them has not tended to progress and refinement. The evidence of this, is such that "he who runs may read." Its good influence — whatever else we may say of it — is everywhere seen ; not simply in dress, ornamentation and show, but — hand in hand with civilization — in the dwelling houses, furniture, equipages and grounds of the people. The great fear now is, — if not already the greatest evil, — that the devotees of fashion will soar too high, grow reckless and lavish, sacrificing both elegance and good taste. This error prevails, as of course it must if at all, among those who set the fashions for others, and thus the wealthy, who can afford and in some sense ought to afford themselves proper indulgences and rational gratifications, induce the less wealthy to rush into greater extravagancies than their means will allow. — Herein the public mind needs to be enlightened and cultivated, and in this view Fashion may be regarded as something to be studied and taught, in the hope that good sense and good taste may regulate and rule so potent an influence.

RULES FOR WRITING.

DIFFERENT writers upon the subject give different rules for the guidance of young persons in writing compositions; but, like similar instructions concerning other things, — especially those involving mental operations, — they are abstruse, vexatious and difficult to follow. Let somebody try, just by way of experience, to write an “article” for the newspaper, according to any system of rules intended to meet the case. If said somebody have the necessary talent to write the article in the first place, or to speak practically, if the raw material be at hand, we think “somebody” would soon find the rules laid down rather troublesome to bear in mind and still more vexatious to follow. We have not a doubt that “somebody” could write the article with much more ease to himself and much more satisfaction to his readers, by wholly disregarding the rules than by attempting to recall and observe them. However, not to discuss this question further, there is one rule laid down by a pretty sensible man in the matter of writing, which, if we have been violating in this article, we propose now to enunciate and peradventure to follow; and that is, When you are going to write on any particular subject, pitch straight into it; at the first go off; don’t go circumambulating all over the universe and through all history, past or present, nor take your starting point

at an earlier date than the Noachian flood — that is to say, if you must do any of this ; but pitch directly into the subject of the proposed writing. There is, however, one condition precedent in this matter which cannot be overlooked, and that is the previous preparation. This is essential — for if one has nothing to say, it follows conclusively that nothing needs to be said ; if “somebody” is not prepared to say something, the best thing which said somebody can do is not to attempt it. It will be asked, no doubt, what is meant by preparation ? Dr. Johnson, — the austere and dogmatic philosopher of his day, — used to think that the whole essay should be prepared in the mind — in point of fact conceived, elaborated and committed to memory, word for word, and then written. All the proposed illustrations and quotations, poetical and other, were to be thought out and thought over, and the writing was to be a sort of daguerreotype of the mind, on the subject in hand. This cumbersome process might do for him, if he liked it and was equal to it, but it never would have answered for his shadow and purveyor, the devoted Boswell. If Boswell had not written or noted what he saw, heard or thought, at the time, the probabilities are ninety in a hundred that he never would have written those six volumes of leaden twaddle ; and both parties would have been spared that modicum of immortality which the writing in some sense has secured to them. Boswell could never have followed Johnson’s system ; it was not in him ; he accomplished wonders in remembering from time to time what to write, and

in that writing illustrated the narrative wherever it needed it and supplied the portions which his memory failed to furnish. He knew, as all writers must know, what he was going to write about, but if he had had it all to plan out and arrange in his mind — the jests, the jokes, the sneers, the growlings, the sane and insane sallies — before writing, the service would have become distasteful and burdensome for even his plethoric admiration.

We adopt in this matter at once the brief *dictum*, “pitch in.” It is the American method and has its advantages, whatever the disadvantages may appear to be; and we ignore altogether, as a system, the instructions of the literary autocrat of English history. We are not inclined to admit that it has any advantage in itself, but rather imposes a double duty upon the mind and memory of the writer without any special gain to either or to the subject. It would seem that there should be something gained in the completeness of the composition, but this will be lost if the conception is to be reproduced like a *fac similie*; and if to be amended and improved in the writing, this may as well be done in the usual way of revision and re-writing. But in any writing, done in a scholarly fashion, we cotton immensely to the first draft: if it be right and ready, prompt and pointed and fresh, it will be forcible and vigorous, and by the very spirit in it, will hold the attention of its readers. It may have qualities in these respects which will go far to make up for any blemishes of style, inaccuracies of diction or possibly grammar,

any elaborate adjustment of which is very apt to dilute and weaken the composition. So again we say, as the sensible gentleman already referred to says, "pitch right in." Understand yourself, comprehend your subject, be as elaborate, as profound, as direct, as terse and comprehensive as possible, keep within the post-diluvian period and the pale of common sense, use good English, and then as David Crockett used to say, "go ahead." If you can't do this, then no sort of rules will help you. You have most assuredly mistaken your occupation and will find some branch of mechanics or farming a more congenial pursuit. It is a good thing to try to do the best you can in everything you undertake, but it is not worth while to undertake to do what you cannot do and somebody else can do. The President of Harvard College, with all his authority, must give up the problem of making a silken purse out of the porcine organ of hearing, as a thing that is not to be done. There are many things that cannot be done by anybody, and some that may be done by one person and not by another : when it comes to this, let the ambitious youth like a sensible man, take up shoe making, husbandry or go a-fishing and give up writing and authorship.

But, on the other hand, if you can do this thing and do it well, we repeat ourself and another, "pitch in," and do your very smartest, reverently and with thanks, as a Christian should.

There is no mystery about writing — the art or the article. It is like playing upon the lute, when you

know how to govern the ventages and give it breath, it "is as easy as lying," but not quite as damaging to a virtuous people. The art of writing is a manual operation, easily acquired, and is only allied to the mental process of composition as signs and figures to mathematics, the score to music, or type to literature. It does not follow because a man knows how to write that he can therefore edit a newspaper — the direst slavery in the range of the professions — or write an article. Rules are good enough things in themselves, whether in penmanship or logic, but after all they are rather tests than guides. Genius is a rule to itself, and in Shakespeare's time was grammar as well as rhetoric. No rules were extant for his use, nor did he leave any, unless by example, for the Dean of Canterbury, Washington Moon or Grant White to quarrel over. Rules are but restraints on freedom and genius, and utterly adverse to the American method : therefore we say, in full appreciation of the looseness and independence of the phrase, "pitch in," and do the best you know, untrammelled and unvexed by rules, which like the plumb and level, may be applied as the work progresses, to test its proprieties and ward off mechanical criticism.*

If you fail, as others have done, when you discover the fact set about something else that you can do well, some honest trade, and that will stand by you and be a

* In confirmation of these views we quote the remark of a recent writer, speaking incidentally upon the subject, who says : "In nine cases out of ten text-books, which profess to teach composition, are worse than useless."

support as long as you are able to work. A trade is a good thing to have ; better than much literary ability ; better often than money itself ; you cannot lose it ; no burglar can rob you of it ; fire will not burn it up ; bank officers cannot embezzle it ; it will outlast all other kinds of personal property, and the more it is drawn upon the better qualified is it to respond to new demands. It is safer than government bonds and when well used will pay larger dividends. So that, if you cannot write a newspaper article you can push a fore plane, make a pair of shoes, mend a wheelbarrow or carry a hod, and in the mean time let somebody else do the writing who can do it better. There would be much good sense in this course. We are inclined to think, if the rule suggested should be generally adopted, and men would do the things which they can do best, there would be a great revolution in business and society for the benefit of all. It would emphasize the law of progress and improvement. We should probably have less mediocre writing and less need of rules ; less poor work in all the trades and professions ; profounder science ; a higher range of art ; less dissatisfaction with men's pursuits ; greater prosperity for all ; more happiness and a better literature.

PROGRESS AND BENEVOLENCE.

PERHAPS it may be claimed that the distinguishing features of the present age are progress and practical benevolence. It could hardly be otherwise : they are in accordance with its enlightenment ; and that which will characterise it in all time to come is the emancipation of four millions of slaves and the elevation of a race to the rights of freemen — a measure of progress and benevolence so emphatic that it may be said to have daguerreotyped itself as the most brilliant page in history. Progress is everything, and is sanctified by a benevolence which embraces the human family. Say what we may sometimes, the spirit of benevolence is universal. There are none who have not felt its influence and in some way given their aid in its behalf. We have seen the loftiest spirits devoted to its objects : the improvement, elevation and happiness of man. It has been their highest ambition to do something for the equalization of human condition and alleviate the burdens of the poor and the oppressed. They have rejected, in their benevolent efforts, the arbitrary distinctions of communities, and instead of seeking means to keep up and extend the divisions of civil life, have sought to break down the barriers and place mankind on a common level. They have left the little matter of hereditary rank and power, where these have existed, to little

minds, capable of appreciating such distinctions which they might not otherwise gain. The discovery that man elevates himself in elevating his species, which is claimed by this age, has grown out of the spirit of benevolence and is as much an axiom as that he who imparts knowledge to others thereby improves himself. The doctrine that an ignorant multitude contributes to the greatness of an almost equally ignorant nobility, was long since exploded, but it has been left for modern times to advance the true attributes of greatness to their highest dignity. Now, it is not the great landholder, the mere lord, the successful warrior ; not him who has the largest tenantry, or him who has slain the greatest number of men, that has the justest claim to be called great. Man in the highest civilization, is to be measured by his mind, his learning, his humanity, and that man who does the most good, who exerts his powers and talents to inform and elevate his fellow men, deserves of all others the praise, the honors and commemoration of the world. Perishable monuments may be raised, as they have been, to glorify the great destroyers of the human family, and their deeds of daring may be recorded on the pages of history, but they have waded in blood to their honors and wrung from posterity the feeble praise of having obeyed their tyrannical masters or their more tyrannical ambition. History informs us of the millions who have been slaughtered in supporting and opposing the pretensions of tyrants, to whom triumphal arches have been raised and for whom the admiration and respect of the Christian world



is demanded ; but their grasping ambition and their chilling cruelties form the most conspicuous features of their rapacious lives. They never gave any consideration to the questions of human rights or human wrongs : of virtue or intelligence ; of slavery or freedom ; of law or justice. Personal ambition crushed out benevolence, and the only progress aided by them was that of pride and power. They should doubtless be remembered for the deeds they have done, but that eulogy must be faint which shall pronounce the good they have done.

There is perhaps no aspect in which we can contemplate the work of the spirit of benevolence so directly as in the efforts made in behalf of universal education and the spread of knowledge. We are all aware of the lesson in the lines of the poet,

“ A little learning is a dangerous thing ;
“ Drink deep, or taste not the Pierian spring,”—

but it is by no means the privilege of all to follow its teachings or realize its enjoyments. It has been thought by some writers that a general diffusion of knowledge must necessarily be superficial and therefore unsatisfactory and detrimental to the cause of learning and literature ; but it is not expected nor is it desirable that all should become scholars. We would have none ignorant of the great laws of the universe : the powers and capabilities of man ; the object and end of his creation ; his rights, his obligations to society ; his dependence upon his Maker, and his duties towards his

fellow men. We would give to all, as far as possible, the means of securing an education and all the encouragements in our power to afford to promote its attainment. Under a government like ours education is safety, purity, permanence, and all the efforts intended to make it general can have no other effect than to advance it in degree, and to render it less and less superficial. Practical benevolence as well as the fundamental principles of a republican government, point directly to the diffusion of knowledge as the means of preserving liberty and promoting moral and intellectual growth. There is an abiding satisfaction in contemplating the work and progress of an enlarged spirit of benevolence, operating in its multiform ways for the highest welfare of man. The acquisition of knowledge brings man nearer to the source of all knowledge ; elevates and allies him to his fellow men, and enables him to know and understand himself, his wants, his capacities, his duties and his destiny. Benevolence and education act upon each other in the human mind : Benevolence prompts the diffusion of knowledge, and the possession of knowledge inspires the charitable and sympathetic heart : directs and guides if it does not give life itself to benevolence. It is thus that the whole community may be said to be influenced by what undoubtedly is one of the prominent characteristics of the age ; and all from the highest to the lowest, within the reach and susceptible of good impressions and noble thoughts, exert themselves to communicate or acquire knowledge. In all this there can be nothing but en-

couragement for the philanthropist, the statesman and the Christian. The era of intellectual freedom has shed its benignant and glorious light over the world, and never again can the literary wealth of the ages be suffered to mould in convents or waste in cloisters ; never again can the world be left in the darkness of ignorance, to grovel in debasing superstition and follow the phantoms of falsehood and error. The Press — that mighty engine of political and intellectual power ; the dread of tyrants and the hope of freemen — has accomplished its great work and made any retrograde movement by whatever human agencies aided, utterly impossible and hopeless. The “march of mind” is truly onward, and no power save the great First Cause can retard its progress or prevent the accomplishment of its ends. It has now elevated man from the brute level, as it were, to a degree of civilization and refinement at once his glory and his happiness. It has given to him power over every degree of material life, by which he guides, directs and to some extent, controls the laws of nature. Even the elements in various ways are made to contribute to his wants, his powers and his convenience : to yield, as it were, obedience to his will and become subservient to his purposes. It is almost impossible for the mind to conceive of anything within the scope of power or the sphere of human knowledge, calculated to contribute to his power or enjoyment, which man may not attain by his ingenuity, perseverance and energy. He navigates fearlessly the trackless ocean, overcomes the coursing winds in his career, and

raises himself into the very clouds and sails through the air ; covers himself with all that luxury, taste and art may design or desire from the animal and vegetable kingdoms, and puts the insect tribe under contribution for his rich and gorgeous adornment. In short all nature contributes to his means and is auxiliary to the necessities and wants of civilized, refined and educated life. Still the march of mind is onward, and each successive year accomplishes something new, or perfects something already conceived as desirable ; and such is the influence of practical benevolence and the diffusion of knowledge that man can enjoy nothing by himself, but finds his highest reward in doing something for his fellow men to increase their power and promote their happiness. What virtue beyond this ; what more of "peace on earth and good will to man," shall we look for on this earth ?

HOW TO BE HAPPY.

THE highest merely personal considerations with a man are those relating to his comfort and his happiness, and how he may best secure these consistently with his obligations and duties. No duty can be ignored or disregarded ; no obligation, whether assumed or imposed, left unperformed ; no opportunity neglected ; no privilege unimproved. These demand thought and circumspection ; it may be sacrifice ; but certainly performance, and from that very performance comfort, contentment, happiness — these three estates of human life — should be sure to follow.

Comfort, whatever the measure of that may be to different individuals, under different circumstances, is by far the most easily to be obtained ; but being comfortable in external things is not happiness any more than hydrogen is water or water the life-giving blood. Nor, on the other hand, is happiness to be obtained, as a general rule, without that condition of things which makes the body comfortable — although this may sometimes be the case. But the thing wanted — the element most needed, most easily to be obtained, most necessary to keep and most easily lost, — is Contentment. This is the panacea, the pabulum, the anodyne, the veritable pain-killer of human life ; but unlike all these material consolations, it is neither purchasable or

saleable. Everybody can get it, yet far too few ever secure it. He that has it may part with it but cannot bestow it upon another. It must be gained by each one for himself and kept in the same manner.

The remarkable thing about contentment is its rarity ; that so few persons make any effort to gain it. — They appear to think, if they think at all, that it should come like our appetites, without seeking, but it never comes so : good breeding does not come so ; courteous behaviour does not come so ; social accomplishments do not come so ; nor will that most desirable of personal qualities, contentment, come so. It must be thought of, considered, determined upon religiously and made an object of daily life. It won't do to be fretful and querulous ; overbearing in conduct ; disrespectful in manners or sarcastic in speech ; but gentle, amiable and obliging : in a woman, lady-like ; in a man, thoughtful and gentlemanly. It is peace of mind, not contention ; it is the kindly word, not the biting sarcasm, or the unfeeling innuendo. It is benignant, beneficent, beautiful, blessing all by its presence. True, it is subjected to trials that are vexatious and troublesome ; but what good thing is not ? Things seldom run easily or smoothly or progress successfully, as a matter of course, with high purposes. Really good causes, as we regard them, do not seem to prosper as those of more doubtful character. But after all it may be our way of looking at it, as in the long run good purposes prevail.

Contentment is about as necessary to health as it is

to happiness ; is in fact essential to both health and happiness, and is to be acquired and preserved as they are : by labor, restraint, sacrifice ; liberality towards others, self-denial towards yourself. It is not simply a condition but a state ; not one thing but many things. It is as it were the crown of goodness, and every commendable deed adds to its quality and its enjoyment. — Contentment is one of those luxuries, which, in what may be called financial morals, pays a good interest.

Comfort, perhaps, is a first necessity ; many things, just as we happen to think, are requisite to comfort. These are to be supplied, and while these may make stupidity comfortable, and very likely contented, they are just as necessary to the highest organizations. It seems to be almost as necessary that comfort should precede contentment as that contentment should precede happiness. They are in many senses the three estates of human life, depending in large measure upon each other. But of course, the loftiest reach of contentment is where it is found under depressing circumstances, in lowly conditions of life, amidst suffering and destitution or stricken with sorrow. Contentment, rare as it is amidst the luxuries and superfluities of life and freedom from labor and care, is angelic under deprivation, destitution and suffering.

So that, after all, however many things we may have in possession or in power, conducive to contentment, this chiefest ingredient of happiness is not always with those most favored with this world's endowments ; but, as we sometimes see in real life, the sublimest con-

tentment may be found amidst want, deprivation, suffering — in the heart, or it may be, in the household.

If people could only be induced to look always on the bright side of things ; to make the best of whatever befalls them ; to appreciate and enjoy what they have,—we are almost disposed to say, as the poor do,—there would be more contentment, more real enjoyment and more happiness. The habit of repining, complaining, lamenting, bemoaning, always deploring the existing condition of things, indulged in by some persons of impulsive temperament, which they make no effort to change or get rid of, is an exceedingly unhappy state of mind, uncomfortable to itself and disagreeable to all others. It is worse than mere inanity ; it is distress added to suffering. It is far more sensible to make the best of a little grievance, or bear wisely a greater burden and hope and work for better things and the rewards of a Christian resignation. To sit down and groan or growl over what cannot be helped or after it has happened, crying for the milk that has been spilled or the penny that has been expended, is as senseless as it is useless, unavailing and unreasonable. The only worse thing is — despair. Poor human nature, under false training and unwise experience, may succumb even to this fearful extremity : the triumph of human weakness.

Discontent is labor, both physical and mental ; disturbing, weakening and destructive of nerve and muscle, flesh and fibre. It is the most trying kind of self-inflicted brain work, provoking itself and drawing after

it a train of evils. It is a very upas tree, producing a deadly fruit and destroying all wholesome life by its touch and its breath. Intelligence should shun it, education reject it, virtue avoid it, wisdom crush it : it leads to anguish, despair and death. Associated with it, comfort and happiness are impossible.

A condition of comfortableness is greatly to be desired, and no man should sit down without a thoroughly energetic effort to reach it ; but whether successful or not, discontent, under a wise teaching and an earnest faith, is not to be indulged in : if so, there is an end of happiness and hope. Of course everybody and every thing has a disposition or inclination to be comfortable : instinct leads in that direction : and if the same efforts were put forth to secure contentment, happiness would be sure to follow. Happiness is not to be jumped at and seized, but rather to be wooed and won — the prize of worth and virtue, faith and patience : it is a triumph of circumstances, an achievement of growth, not the mere result of impulse. No man or woman may hope to be Comfortable without an effort : neither does Contentment come without seeking : nor is Happiness to be caught, as many other things are, simply with a silver hook : things worth much cost much.

ODE.

Sung at the Laying of the Corner Stone of the Light House
on Minot's Ledge, Oct. 2, 1858.

On lonely rock in Ocean's wild domain,
Where tempest-echoes wake the moaning sea —
Where e'en the frighten'd bird seeks rest in vain,
We raise, great God, this tower of faith in Thee!
A pillar of light forever let it stand,
To guide the mariner to his native land.

Pile rock on rock, 'till firm as distant shore,
Or rock of ages, on its mountain home, —
'T will meet the Ocean in its wildest roar,
And stand triumphant countless years to come.
A pillar of light forever let it be,
To guide the mariner o'er the trackless sea.

When storm winds howl around thy granite side,
Or sing a requiem o'er the Ocean grave :
When waves roll high and swell the rising tide,
Be thou a beacon light to warn and save.
A tower of strength forever let it stand,
To guide the mariner to his native land.

Pillar of light like that of ancient time,
Which marshall'd Israel on his weary way,
Be thou a star of Hope, in faith sublime,
To cheer the home-bound with thy welcome ray.
Thy gladsome light, forever be it thine !
'Till Time shall falter and suns shall cease to shine.

THE BATTLE OF BUNKER HILL.

I.

The silent stars were burning bright ;
No cloud obscured the sky ;
The breath of nature e'en was hushed,
And only seemed to sigh.

The new-mown hay lay on its bed,
With fragrance filled the air ;
The evening dew in glistening drops
Seemed gems in beauty's hair.

The placid Charles lay smooth and still,
A stream of silver light ;
And there the Mystic rolled in peace,
Twin beauties of the night.

II.

Slow like march of heavenly orb,
Or flow of peaceful stream,
The serried ranks of men moved on
Like spirits in a dream.

No cry was heard, no word was passed ;
No click of warlike sound ;
Each order giv'n was whispered forth ;
And scarcely jarred the ground.

Silently like gathering storm,
 All through the summer night,
 The rebel work of war went on,
 To meet the morning light.

In stillness thus and labor hard,
 The day-dawn broke the east ;
 Still worked the men in hunger then,
 As working for a feast.

III.

But hark ! the sentry moves apace,
 And booms the morning gun ;
 The flag runs up, the guns run out,
 And smoky glares the sun !

The roar of battle rends the air,
 And rumbling wails away ;
 The earth is stirred and madly roll
 The waters of the bay.

IV.

Behold ! amidst the din and strife,
 That marked the bloody morn,
 Appeared the goddess — LIBERTY ;
 And lo ! A NATION BORN !

THE GENIUS OF MASONRY.

Sung at the Dedication of the Masonic Hall, Boston, Nov. 1, 1858.

Triumphant through the lapse of time,
When all things mortal meet decay,
Thy mission still in love sublime,
Sheds o'er the past its cheering ray.
So may it shine 'till years shall end,
And man no longer needs a friend.

When first of old in silent wood,
The Brethren met at thy behest,
Thy welcome presence cheer'd the good,
And made each labor there more blest,
In Hope and Faith we gather near,
And seek thy inspiration here.

In later years when storms arose,
And persecution wild was rife,
Thy troubled spirit found repose
In heart-homes of fraternal life.
With Hope and Faith our hearts to cheer,
We seek thy inspiration here.

Come once again with wings of light,
And o'er the world thy pow'r display ;
Be with the Craft in glory bright,
And guard our altar day by day.
With amaranthine garlands come,
And crown our new Masonic Home.

THE PILGRIM FATHERS.

I.

Here, on Plymouth's wave-washed rock,
The PILGRIM FATHERS trod,
Seeking a home for Freedom —
A place to worship God !
On this wild shore,
Forevermore,
We'll consecrate the sod.

II.

They came 'midst storm and tempest,
With howling winds around ;
They met the savage foemen,
And wet with blood the ground.
In God their trust,
If fall they must,
Their grave the martyr's mound.

III.

They perill'd life and hope,
And braved a fearful fate ;
They were stern and pious men,
And truly, nobly great.
On this wild shore,
Forevermore;
Their names we consecrate.

IV.

The Freedom which they toil'd for,
The Faith with which they fought,
Are monument and chaplet,
By love and labor wrought.
We'll guard their name,
Revere their fame,
For rights so dearly bought.

V.

In Time's immortal record,
The MAYFLOWER e'er shall stand,
The ship that bravely bore them,
To Freedom's happy land;
To this wild shore,
Where evermore,
We'll bless the noble band.

VI.

Raise the monumental pile,
Above the rolling sea;
Let it mark the life and faith
Of men who would be free;
On this wild shore,
Forevermore,
We'll guard their Liberty.

/

THE FALLING SNOW.

How lightly falls the fleecy snow,
From out the darkened sky,
Clothing all things with a mantle
Of stainless purity.

How softly falls the crystal snow,
As floating through the air,
Gracefully robing tree and plant,
Like pearls in beauty's hair.

How silent falls the fleecy snow,
Its noiseless touch scarce seen ;
It covers up all blemishes
And drapes the wintry scene.

Thus lightly, softly, silently,
As falls the fleecy snow,
God's bright blessings fall from Heaven,
O'er burdened hearts below.

X.

THOUGHTS AND REMARKS.

THOUGHTS AND REMARKS.

TRUTH should have a language of its own, but then falsehood would steal its garb as hypocrisy puts over itself the cloak of holiness.

The rewards of labor make its burdens easy and lessen its cares.

Let the memory of the past teach and guide the future, for this is wisdom.

Patriotism is the country's protection as intelligence is its safety.

A people worthy to inherit will not fail to honor the virtues of their fathers.

The brave are the first to fall, but their deeds live after them and make history.

What the past is to us we shall be to the future.

Persons who are difficult to please rarely make any effort to please others and never please themselves.

Progress and usefulness are among the objects of life as the pursuit of happiness.

The great law of nature is change ; the great law of commerce and community is exchange.

Folly displays itself in its affectation of wisdom as vulgarity does in its imitation of fashion.

Walter Scott thought chess-playing a great waste of brains. So would geometry be to the masses and they would find no recreation in it.

Good taste relieves and blesses homeliness, as intelligence and sweetness ennobles the character and makes the possessor lovely.

Life is man's trial term : it cannot be without difficulties and be enjoyed. It may as well be without desire as without obstacle. It is composed of difficulty, struggle and enjoyment.

"Waiting for something to turn up" is not always a waste of time, and the point is in knowing when to wait and when to act. It is the tide in the affairs of men and must be "taken 'i the flood."

Ignorance in an illiterate man or folly in a foolish one may be endured, but for a person to do a thing wrongly which he perfectly well knows how to do correctly, or for a sensible person to persist in doing a foolish thing, are among the inscrutable things in human nature.

Haste and passion are alike unreasoning and unfavorable to wisdom or virtue.

Wealth alone never makes a great man. A man may be great without it, or he may make himself great with it.

Men and animals are prone to imitate what they see others do, and therefore it is that example is better than precept or preaching.

It is a work of the least possible utility to argue points of high moral duty to minds which do not recognize such duties as paramount.

To allow nature to perfect her works in her own way is such sweet piety that one hardly dares to disturb her delicate processes. This is why a true poet would not pluck a flower and never robbed the lily of its gold.

Many men are so engrossed with the business of this world that they hardly know whether leisure is a quality or a quantity. When and where and how will they discover the difference ?

Thought outruns the car and outflies the telegraph ; the speed of neither of these can add to its velocity. It is not weighed down with any materiality, and flies whither it chooses, with or without our consent.

We seek the family relations of a plant in order to find out its character, and the pedigree of animals to ascertain their value ; but for the person and character of a man we look to himself.

Dark places, gas abandoned, are apt to be otherwise abandoned : darkness is perilous to body and soul.

It is comforting to see how readily our pleasures accommodate themselves to our interests. The satisfactions of success take away many disagreeables.

Intimacy which exposes a man to his valet in undress, is a severe test of quality as it often is of friendship and closer relations.

It is something gained to get out of a beaten track, whether vibratory or gyratory, which may be monotonous and must be unprogressive.

That man must have good personal qualities who is able to retain the respect and good opinions of those who know him best. It is far easier with most men to gain position than to maintain it.

Sympathy is an emotion or an emollient, and may have a medical quality as a soothing cordial. Some persons are always demanding it for some ailment or grief, real or supposed, present or apprehended, and it does not seem to matter much with them whether they get it or not : they find relief in the asking.

Progress, of which we think and say so much, is not alone to goodness, virtue and excellence ; in the graces, the arts and sciences ; but, in large communities, in vice, crime and error generally. While progress in one direction is made by the better classes, progress in the other direction is made by the vicious classes — so that vice and virtue, like weeds and flowers, are pretty sure to grow together.

Simple peace is the paradise of the mind.

Love is an emanation of the soul and will not serve upon compulsion.

It is better to yield the bone to the dog than to quarrel with the brute.

To sacrifice love for power is to give up happiness for discontent ; peace for discord.

True love is not domineering but submissive, and by its tenderness softens the heart and gains its power.

The heart's joy like the dusk of the evening, brings out the starry jewels of the mind.

The shadows of night almost give tangibility to the pictures of the imagination. Is this why dreams are so vivid and often seem so real ?

Do we not sometimes set too high a mark for human nature, and when it falls short, censure the failure instead of commending the effort ?

A spotless rose like a sinless heart gives out its fragrance to all ; and is not only beautiful but an emblem of purity and goodness.

There is no relief in repining. Sorrowful countenances mend no broken limbs, repair no damaged fortunes, heal no wounded feelings. A cheerful heart is better than a tearful eye, and if there is a chord in the heart that vibrates a melancholy note there is little reason in banging out its sounds to the murder of harmony and the destruction of quiet.

Do what good thing you can when the opportunity occurs or you may regret the omission. The consciousness of a good deed is the purest happiness, is elevating and yields only satisfaction.

Pretension and presumption prosper where modesty and merit are sure to fail. A sturdy beggar is more successful at alms-getting than a retiring and really deserving applicant for charity.

The beautiful attracts us sooner than goodness, yet while the one fades before our eyes like a morning flower, the other grows into our affections. We may admire the one but must love the other.

The world is prone to censure rather than praise; to condemn rather than commend. Ninety-nine good acts hardly outweigh one wrong deed. It is fortunate for men that men are not to be their final judges, for then there would be wrongs.

Unintentional falsehoods, mere thoughtlessness and inaccuracy of statement, exceed many times the number of falsehoods by design with intent to deceive. These are distinct from "white lies," which are sometimes thought to be excusable.

The man or woman is unwise who looks behind for troubles that have passed, or before for those which may come. It is well to heed the lessons of wisdom which experience teaches, but who broods over trials, troubles, losses, missed opportunities or other earthly ills, which have "passed into history," may find that it were better to look in the other direction.

To be without error is only negative excellence. —
There must be works.

Some persons are unhappy if they have not everything they desire ; yet what a satisfaction it is to a cripple to be able to move himself on a machine propelled by the sound members of his body. Even his condition might be much worse.

We are much mistaken if we suppose affectation to be an exclusively feminine weakness. However much it may embellish or mar the female character, as it may, it is a quality, or a weakness, which, to say the least, is about equally divided among men and women.

What we think others may think troubles us too much. It is not what others think, but what we think that is to do us good, and for which we are to account. It is singular that when people have reason to think badly of us, it is just then that we do not care a straw what they think.

It is remarkable how slight an impression newspaper statements, when true, make upon the mind. The ties of kindred are sometimes broken with a crash which crushes the heart within us — yet two lines tell the story in the newspaper, and the reader cannot, in a moment after, tell what those two lines recorded, although they have made hearts bleed and made hope itself almost hopeless.

SPIRIT OF THE PAST.

Spirit of the past, I welcome thee !
Come to my Thoughts again —
Waking mem'ries which long have slept,
Of love and grief and pain.

Spirit of the past, I welcome thee !
As from my childhood's home ;
Thou bringest features, scenes and tears,
And hopes of things ne'er come.

Spirit of the past, ye come to me,
With all thy store of thought ;
The cheerful faces, loving hearts,
And all the joy they brought.

Spirit of the past, ye come to me,
In mem'ry's realm I roam ;
Waking to life, long past and gone,
The scenes of early home.

Spirit of the past, I welcome thee,
For all that thou hast brought ;
I know thy sweet fruition now,
And live it o'er in Thought.

Spirit of the past, I welcome thee,
O, never leave me more ;
I revel in thy Sybil leaves,
And read them o'er and o'er.







